CASE STUDY REPORT

SURVEY AND ASSESSMENT OF IDRC'S COMPLETED PROJECT

IMPACT ASSESSMENT OF IDRC PUBLIC GOODS AND POLICY PROJECT

SUSTAINABLE LAND AND FOREST MANAGEMENT PROJECT (PROJ. NO. 91-0074)

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Highlights

The study is an impact assessment of IDRC's funded research project, the Sustainable Land and Forest Management Project. It was undertaken by the Cordillera Studies Centre (CSC) of University of the Philippines College Baguio. The objective of the assessment is ***not*** to evaluate the project but to find out whether or not the project made a "difference" on the lives of the indigenous people in Cordillera as well as the effects the project engendered to major stakeholders in the region -- government, non-government organisations, policy-makers, local communities, and CSC-UPCB itself.

The methodologies used were: key informant interview; focused group discussion; qualitative content analysis of documents; and actual visit to one of the project's study areas. Impact assessment covers the following areas of concerned: research outputs; extent of influence the project reached or effect on its perceived beneficiaries; and consequences of the project's presence or outcomes/impact it generated.

Results of case study show that:

- Inter-disciplinary study on sustainable land and forest management was not achieved with the unresolved differences between the social and natural scientists affecting the operation of the project;

- Outputs, especially tangible ones, would be difficult to sustain and effectively influence policy under a fundamentally non-participatory research as reflected in the non-active involvement of communities, government agencies, non-government organisations, policy makers and other key stakeholders in the entire process of research development;

- Project's *"beneficiaries"* or *individuals, institutions, and communities* cannot claim "ownership" over the results of the study since they were simply used as passive sources of information; and

- Impact can only be described and manifested within the implementing institution, the CSC-UPCB as the effect of the study was confined within the said unit.

Among the factors that impede the enhancement of impact and outcomes are:

- Unclear and undefined beneficiaries or users of research;
- Non-participatory strategy in carrying out the objectives of the study;
- Inability to establish a clear mode of research utilisation, dissemination and monitoring-feedbacking system on the application of research outputs;
- Untimely delivery of project inputs and delay in the conduct of planned activities; and
- Unsustainability of outputs and products of research.

Enhancing the outcomes of research need a change and alteration or the creation of a better condition on the following areas:

Research environment

- Institutional transformation of UPCB into an autonomous unit of the UP System
- Elevation of the CSC as a research and development and extension arm of the College rather than the Social Science Division

Research Design

- Participation of beneficiaries and prospective end users of research from the stage of design conceptualisation to monitoring and evaluation
- Use of dynamic, innovative, and interactive methodology in research

Leadership and Organisation

- Project leaders must be in a position to lead and possess the commitment to carry out the study to its conclusion

Timing

- Problems, concerns, and issues related to project design, organisation, and personnel must be resolved prior to the commencement of the project

1.0 **Background**

Over the last 25 years, the International Development Research Centre (IDRC) has supported more than 5,000 research projects throughout the less developed countries (LDCs). Although a substantial amount of resources have been expended to evaluate these projects in terms of their goals, objectives, and outputs, a study on their ***impacts*** not only on the development process but more importantly on the lives of people who have been influenced or affected by research and development activities is much to be desired.

In this opportune time, IDRC embarks on an impact assessment study to have a comprehensive and profound understanding on how development research (both supported and initiated) contributed in affecting and changing the lives of people among LDCs. Likewise, an analysis of impacts is of prime importance to the Centre in the interest of fulfilling its development role in an effective and efficient manner, thus making it more relevant to the needs and demands of the marginalized people of the world. Moreover, it provides greater chance for IDRC to enhance its share to the national social and economic development of the country concerned as well as strengthen the capacities of institutions and actors to move more effectively toward their development goals in a trajectory generally viewed as progressive and sustainable.

This case study shall analyse the impact of the **Sustainable Land and Forest Management** project of the Cordillera Studies Centre, University of the Philippines, College of Baguio (CSC-UPCB) (IDRC Project No. 91-0074) which falls under IDRC's social policy, public goods and quality of life section. The aforesaid project was chosen for its direct relevance to the qualify of life of indigenous peoples in the Cordillera region apart from its potentially broad policy implications.

2.0 **Methodology**

Under the guidance of IDRC's concept paper, impact analysis design, and evaluation framework, the case study proceeded using the following methodologies: (1) review and qualitative content analysis of pertinent project-related documents, reports, manuals, notes and memoranda, minutes of meetings and proceedings, and project-generated publications, i.e. CSC Working Papers (see Appendix 4 for list of documents); (2) in-depth qualitative interviews and focused group discussions with key project implementors and beneficiaries (see Appendix 3 for list of interviewees); and (3) actual visit in one of the project's research areas (*Barangay Paoay, Atok, Benguet* Province). The place is significant as this was the place where both social and natural scientists conducted their respective studies.

Substantive data gathering was made at CSC-UPCB beginning on August 18-23, 1997 where 15 of the 19 key informants were interviewed. One former program head was interviewed in his Makati office in Metro Manila. Another trip to Cordillera was made on September 15-17, 1997 to meet three (3) other informants, secure more documents, and field visits one of the study areas as earlier mentioned.

Moreover, while finalising this paper two (2) more informants were interviewed who are directly involved in the preparation of legislative bills (both at the House of Representatives and Philippine Senate) concerning the protection of the indigenous peoples' rights. The two (2) bills (House Bill No. 9125 and Senate Bill No. 1728) were later consolidated into Republic Act No. 8371, otherwise known as the Indigenous Peoples' Rights Act (IPRA) signed into law by President Fidel Ramos last October 29, 1997 (see Appendix 2 for Travel Itinerary).

3.0 Sustainable Land and Forest Management Project

3.1 *Description of Project*

The project is a 29-month (July 1992-November 1994) research undertaking, conceived to be descriptive and inter-disciplinary in nature. It seeks to examine how the patterns of natural resource use are defined in local practices in the community, how these local practices are affected by policy and activities of groups interested in the resource, and what these interactions imply for sustainability as indicated by the quality of life and environment. The study was principally led by the CSC-UPCB in collaboration with researchers from the Benguet State University (BSU) and UP-Diliman Herbarium.

Four (4) communities in Cordillera were covered by the study. They were chosen based on the institutional arrangements or property regimes governing patterns of resource use and management practices. These are: (1) *Suyo* and (2) *Patay* in *Sagada* and (3) the Mount Data Plateau in *Bauko,* all in Mountain Province, and (4) *Paoay, Atok* in the province of *Benguet.* The CSC-UPCB received a total grant amounting to C$ 231,264 to undertake the study apart from the funding IDRC provided for a 6-month project proposal development.

Rationale

Informants can only speculate how the project was conceived inasmuch as most CSC faculty research staff involved in project implementation were not directly engaged in the conceptualisation phase. Lorelei Mendoza (then CSC Director in 1990) was said to be instrumental in framing the project proposal and organising the research team. However, she was unable to continue the project when it started in 1992 when she availed of a fellowship grant (a built-in component of the project) to do her doctoral studies at the Catholic University of Leuven (*Katholieke Universiteit te Leuven*) in Belgium.

Among faculty researchers (FRs) who were part of the original research team and stayed on until the project's completion (5 out of 15 members) surmised that Mendoza's participation in the Southeast Asian Network for Regional Development and Indigenous Minorities in Malaysia, where she represented CSC, might had given her the opportunity to talk with IDRC and got its interest to do a study with CSC. This eventually led the latter to develop a project proposal for the former's consideration and subsequent fund support.[1]

It was also mentioned that IDRC funded the development of the study's proposal for six (6) months. In the process of conceptualising the project, FRs made an ocular appraisal of the Cordilleran region to scrounge for a researchable topic relevant to most of the communities. This resulted to a proposition to study the prevalent commercialisation of agricultural and forest lands and its impact to the environment. According to informants, the issue of "commercialisation" has been a persistent concern in Cordillera that often crops up in their previous researches.

A 12-page proposal, entitled "The Interaction of Local Practices and Policy in the Sustainable Management of Selected Natural Resources in the Cordillera," was later submitted (06 June 1991) to IDRC for funding. The proposal was entirely and substantially designed by CSC with minimal interference from IDRC except in the areas of the study's focus and methodology as well as the budgetary requirements which were viewed by IDRC's evaluators as vague and excessive respectively.

From the flow of events, it is apparent that initiative to do the study came from IDRC although the identification of a research topic was CSC's sole responsibility. Evidently, the availability of funds encouraged CSC to pursue the project. This is not surprising as most researches and projects (training, publications, conferences, symposia, and similar activities) in the country are donor driven. Nonetheless, unlike other research institutes in the Philippines which need to participate in a highly competitive bidding process to have their proposal funded (especially by foreign funding agency), CSC was fortunate that the project was assured of funding from the start, even to the extent that proposal writing was given financial support.

Inasmuch as the project was externally induced rather than internally motivated to undertake an integrative approach in the study of local community practices and policies relative to the sustainability of land and forest resources, the proposal had difficulty in defining the inter-disciplinary feature of the research. This was categorically expressed by IDRC's project reviewers as early as April-May 1991.

Evaluators feel that the research objectives and methodologies were inadequately articulated to holistically show (using the perspectives of social science and natural science) the linkage and relationship between people's practices in land and forest use and management, government's policies on environmental protection, and physical quality of natural resources within the framework of inter-generational equity, decentralisation (empowerment), cultural continuity, and quality of life of the populace.[2]

The unsuccessful attempt to integrate and harmonise the disciplinal concerns of social and natural scientists into one study prompted IDRC, represented by Joachim Voss, to suggest the initial separation of the natural science and social science research teams and "phase in the Natural Science research once researchable technical problems have been clearly identified through the diagnostic research"[3] done by the social science team. Eventually, CSC took the suggestion and decided that the natural science component would be integrated into the study six (6) months after the start of project implementation.[4]

Obviously, the problem of integrating the social science and natural science components into a single study began as early as the stage of project proposal development. A remedial measure to dissociate natural scientists from the process of refining the proposal did not in any way address the issue but simply postponed the resolution of the problem.

As discussed in subsequent parts of the paper, the non-participation of the natural scientists in the initial process of project development impeded the smooth implementation of the project as deliberations on research objectives, methodologies, expected outputs, and relevance of analysis continue to saddle the operation of the study in the entire period of project's life. Both scientists (social and natural science) remain to argue on the utility value and responsiveness of each component study in addressing the main research problem.

The inability of the proponents to define accurately the finer points of intersection and interface between the two disciplines in the early stage of proposal writing contributed, among others, in the unsuccessful effort to engage in an interdisciplinary study. Although they succeeded to agree in undertaking the research separately, it appears that there is no substantial concurrence on the mode of integration.

Context

The CSC is the research and extension arm of the Social Science Division (SSD) of UPCB. At the time of the study, CSC has five (5) major research thrusts as reflected in its organisational divisions (see Annex 2): Governance and Public Policy (GPP); Agroecosystem; Natural Resource Management System (NRMS); *Ibaloy*[5] Customary; and Population Resource and Environment (PRE).

By virtue of the project's basic emphasis on land and forest management, CSC considered it to be more appropriately a concern of NRMS. Thus, informants usually refer to it as NRMP I (Natural Resource Management

Program I). This distinguishes it from NRMP II that alludes to its current research similarly funded by IDRC.[6] Notwithstanding that the project is in fact a combination of all research components of CSC.

As part of SSD, CSC has historically derived its research personnel from the faculty of the following disciplines: anthropology, economics, history, philosophy, political science, psychology, and sociology. Although its researches have employed an interdisciplinary approach in the study of development issues in Cordillera, it remains to draw its conceptual framework from the traditional traditions of the social sciences and employs social science methodologies -- rapid rural appraisal and human ecology approach, specifically the agroecosystem framework.[7]

Social and natural science FRs state that the IDRC project was not the first opportunity that they have worked together. Similar researches were done utilising the expertise of both social and natural scientists specially from the disciplines of biology and chemistry. Nevertheless, a review of CSC publications (regarded as venues in disseminating research findings) illustrates that monographs as well as working and issue papers written prior to the commencement of the project were primarily authored by social science FRs. None was written by a natural scientist. It is therefore assumed that whatever joint researches undertaken culled insignificant participation from natural science FRs.

The dominance of social scientists (SSs) in CSC is understandable inasmuch as SSD was responsible in giving life to it in 1980. As the IDRC project requires a staunch natural science component at par with social science, CSC is driven to make the necessary institutional adjustment to accommodate a strong natural science ingredient in the study. It appears that CSC was inadequately prepared for this situation as it continues to cling to its traditional social science framework. Voss's letter to Maessen in 1991 is revealing, in part it says:

> The main reason (why) I requested that the social and natural science components be separated was because of the frustration the social scientists were feeling in getting the natural scientists to adopt the *same orientation* (as theirs).[8] (italics provided)

This indicates that even before project implementation, differences in disciplinal orientation, approaches, and mindsets apart from contrasting personalities have been existent.[9] Despite attempts to unify the project team (even with IDRC's intervention[10]) were carried out, efforts did not prosper. The difficulty in getting the act of FRs together made collaboration taxing and onerous. This has been reflected in the less integrative output of the study.

Moreover, FRs cited their limitations to go on extensive field research due to their numerous administrative, academic, and other functions and activities they have to perform at UPCB. As a regional unit of UP-Diliman (Manila), they have to comply with the provisions of the Diliman's Faculty Manual which requires them to teach twelve (12) units per semester (normal teaching load). [11]

Even though the Manual credits non-teaching activities (research, authorised graduate studies, creative writing or other productive scholarship, community service, and administrative work) for normal teaching load, a maximum of six (6) units de-loading can only be availed of. More than the allowable non-teaching activity needs an authorisation from the UP President or Diliman's Chancellor.[12] Most project FRs have only availed of a three (3)-unit de-loading as they state that it is unlikely that they will be given a maximum of 6 units given their previous experience.

This situation obliges FRs to stay at UPCB for a week and rely heavily on the senior researcher (SR) to supervise activities of research assistants (RAs) in the field or trouble shoots problems encountered by RAs.[13] FRs field visits are usually done on weekends and extended only during semester breaks (roughly two weeks) or summer vacation (two months), granted that they are not required to do administrative work or teach summer courses and provided further that access to research areas are not hampered by road closures due to landslides.[14]

Given the constraints of time and physical difficulty to gain access to research areas at the time the case study is being conducted, only one (1) area was visited (*Paoay, Atok, Benguet*).[15] The area is an old and established vegetable community whose people have traditionally lived in the farm.

The informant is a vegetable farmer who participated in the project as a respondent to the study's census and survey and did the monitoring of the run-off gauging instrument (device that records the rate of soil erosion) installed in his vegetable farmlot. Besides these functions, the informant said that he had no other interactions with the project's researchers.

According to him, the project had not introduced anything new in the community. In fact, he only knew that the project had ended when the run-off instrument was pulled out from his land. The results of the study

were not known nor disseminated and researchers have ceased visiting the area.

In other words, as far as the informant is concerned, the project does not make any difference nor relevance at all for him and his family as well as the community (see *Reach* below for further discussion).

Objectives

As a general objective, the study intends to examine how the patterns of natural resource use are defined in local practices in the community, how these local practices are affected by policy and activities of groups interested in the resource, and what these interactions imply for sustainability as indicated by the quality of life and environment. Specifically, it resolves to:

1. Understand the social, particularly institutional (whether formal or informal, indigenous or introduced) elements that affect the control and use of natural resources;

2. Determine how local socio-cultural organisations and patterns of resource use are influenced by government agencies;

3. Determine how local socio-cultural organisations and patterns of resource use are influenced by external groups like non-governmental organisations, commercial interests, and development projects;

4. Assess the effects of the interaction among local practices, governmental policy and external influences on the sustainability of social systems; and

5. Analyse the quality of key aspects of the productive physical environment under different production regimes.

Annex 1 stipulates a more detailed description of the objectives.

The case study finds a general agreement with the evaluation contained in the Project Completion Report -- project objectives were fairly met. The "mediocre" ratings the project obtained in objective attainment can be attributed to the inability of the study zero in on the more fundamental issue of the research -- capture the dynamics of interface between the indigenous peoples' cultural framework on resource management and government's national development thrusts as well as assess how such process and dynamics respond to the interest of inter-generational equity,

decentralisation (empowerment), cultural continuity, and quality of life of the people who live under a harsh natural environment.

Informants, specifically the SSs, admit that the study is a "pure research"[16] and descriptive. This is evidenced by the manner the objectives were framed, i.e., "to examine.. understand.. determine.. assess.. and analyse..". FRs acknowledged that the project design is fundamentally non-participatory with the study's respondents to census and survey as well key informants as "source of information."

Further, the attainment of objectives entails an inter-disciplinary approach -- integrating the research findings of three disciplines, i.e., social science, policy science, and natural science into one comprehensive report. However, approach was inadequately approximated as the report appears to be disjointed. The unsuccessful attempt to integrate the outputs of three sciences (most especially those of the social and natural sciences) can be attributed more to the unamiable, though subdued (at the time of the interview), professional and inter-personal environment between the SSs and natural scientists (NSs). [17] As one informant says, "the debates between SSs and NSs can be traced to the problem of personalities," thus, explains the conflict.

Seemingly, the contrasting disposition of key researchers to appreciate, promote, and utilise each other's work has affected the modest attainment of research objectives. In fact, SSs have intensely articulated their remorse on having worked with UP Natural Science faculty members. The NSs were more tempered on this regard. SSs indicated their preference to work with non-UP NSs given their experience with the project. Apparently, a strong leadership at the Program level is necessary to address this problem.

Strategy

Given the magnitude of the project and number of research personnel involved (a total of 37 people participated in the project with 15 study leaders and 18 research assistants whose periods of involvement vary in the entire duration of project's life, see Annex 4), a major strategy adopted was the division of the research staff into four (4) study components, i.e., community, policy, networking, and natural science or biodiversity.[18] Each component was assigned to answer one or part of a specific objective of the project. For instance, sub-objective no. 1 (see *Objective* above) was assigned to the community study; no. 2 to both policy and networking components; policy study to no. 3; no. 4 to policy and community studies; and natural science responded to sub-objective no. 5.

It is assumed that through this arrangement each component contributes in addressing the main research problem. In addition, an informant said that each study team is allowed to operate in a highly decentralised manner, short of being autonomous from one another, except those which are jointly assigned to respond to the same objective. And integration is done through "brown bag" meetings (see Annex 6 for highlights).

It can be noted that NSs were given the sole responsibility to resolve specific objective no. 5. Unlike other components, the natural science team worked alone. While the community, policy, and networking study teams whose FRs are members of the SSD, did their assigned tasks in conjunction and collaboration with each other. The working arrangement appears to enhance the unity among SSs on one hand, and isolation of the NSs on the other hand. Thus, the system drove the wedge deeper (wittingly or unwittingly) between the two disciplines.

The project utilised traditional methodologies in social and natural sciences: community census[19] and survey; key informant interviews; content analysis of documents; and soil, water, plant biodiversity (in forests) analysis. Project leaders expressed that government and non-government agencies were tapped as sources of information, people were sought as respondents to census and survey, while perceived stakeholders were invited to consultation-dialogues (CD) (two [2] were conducted) and community meeting (one [1] was held) to secure their reactions on the findings generated from the project. Dissemination of research results was done through CDs and CSC's regular publications (see *Inputs/Activities* and *Outputs* below for details).

Informants confirmed that methodologies and strategies are not intended to increase people's enabling power to control and manage the utilisation of land and forest resources. RAs (community study team) confided that often they hear obnoxious statements from the people in the research areas, such as: "we are simply being used", "how much did you get for this study?", "will the study give us money, food, and roads?", "what benefits can we derive from your research?", and similar reactions.

RAs believe that the indigenous peoples' observations are normal and valid considering the manner the study was conducted. They further mentioned that these feedbacks were brought to the attention of FRs but no substantial measure was contrived to deal with the said issue -- a fundamental concern of the grassroots communities. "Perhaps, they (referring to FRs) do not see it important," one RA commented.

This indicates that the people and communities are considered objects of research, audience in research fora, and respondents to questionnaires. Evidently, the methodologies and strategies in the study are by nature non-participatory and efforts exerted to allow meaningful interactions of people with the research process have been insignificant. For a participatory research, the use of PAR (Participatory Action Research) as a strategy will be more appropriate.

Inputs/Activities

IDRC's inputs and activities were limited to fund support, technical assistance and advise to project's research personnel, appraisal of research activities, as well as attendance to select workshops and CDs. The low-profile and "less interventionist" posture of IDRC was commended by informants. It gave the project staff relative freedom and independence in managing the affairs of the study. In fact, institutions in the country which receive financial support from overseas funding agencies (FAs), have always appreciated (more often than not) the secondary role of FAs specifically at the stage of project implementation.

Hence, project implementation (including project conception as discussed earlier) was primarily undertaken by CSC-UPCB. Annex 8 presents the details of major project activities and their concrete results while Annex 9 plots in a gantt chart the actual activities done as per documents reviewed and interview conducted.

A major activity done by the project staff was the conduct of community census. This was a departure from what was proposed – to do a rapid rural appraisal (RRA). A complete census of six (6) targeted research communities was carried out instead. No one from the informants can accurately remember the reason for shifting its first activity from RRA to census.

The activity took 17 months to be completed (from the formulation of the design, collection of data, processing of results, and computerisation of findings). Three-fourths (3/4) of the entire period was devoted discussing the study's focus, conceptual framework to be used, methodologies as well as other administrative concerns.

It was only in June 1993 when the research staff decided to focus the study on four (4) communities, namely: *Suyo* (newly opened vegetable farming community) and *Patay* (traditional farming community) in *Sagada*, Mt. Province; Mt. *Data* Plateau in *Bauko*, Mt. Province (forest reserve where vegetable production is done for commercial use); and

Paoay, Atok, Benguet (established vegetable-producing community). Two (2) communities (*Cudog, Lagawe, Ifugao* and *Ambassador, Tublay, Benguet*) were dropped altogether for their failure to meet the study's criteria. In other words, it took the team 10-11 months to decide on the specific communities to be studied. [20]

The identification of study sites is a key component of the research as other project activities are contingent and hinged on it. The community survey instrument was designed two months after the census data were made available (March 1994) while survey results were completed in June 1994; substantive activities of the policy and networking components (see endnote 18) began in July 1993; and natural science team revised its methodology after the focus of the study was determined (June 1993) and concluded most of the data analysis in May 1994, notwithstanding the biodiversity analysis of tree species was finished in November 1994 (end of project's life). (For details see Annex 9)

Some informants admit that the census took a long period and they believe that the research team should have taken the RRA as a methodology as the latter is said to yield generally the same findings as the former. Others, on the other hand, think the census is a better methodology as it gives a thorough and real picture of the community with its practices and uses of land and forest resources.

The conflict in opinions among SSs on the methodology plainly reflects that a comprehensive and exhaustive evaluation of this activity and methodology has not been done.

Another activity was the conduct of CDs. Two (2) were carried out, the first one in October 1992 and the second in September 1993. These were fora that brought together government and non-government organisations (GOs and NGOs) to discuss GO's policies and programs related to land and forest resources and mode of collaboration with NGOs in terms of policy formulation and implementation.

The first CD was aimed at understanding key GOs strategies and policies on forest and agricultural land management in Cordillera, identifying problems and issues related to forest and land management, and exploring possible GO-NGO co-operation in sustainable development. The second one was a follow-up of the first and intended to update the project staff on the status of NGO-GO partnership in policy formulation in the forestry sector.

However, the second CD was called almost a year after the first was held. Some informants said that it was conducted to enlighten the networking component in addressing its assigned task -- addressing objective 2.3 (see Annex 1), i.e., "to characterise the process by which policies with regard to the use and control of particular resources are made and implemented." Annexes 6 and 8 indicate that the networking team remains uncertain how to deal with its task after a year of project implementation.

It was also mentioned that the second CD was made to gain inputs from GOs and NGOs on issues and concerns relative to the process of policy conception and implementation. This was in preparation for the Third National Social Science Congress held three (3) months after the second CD (December 1993) where a member of the project staff presented a paper.

Apart from CDs, the policy and networking components made visits to various governments and non-government agencies both at the national and local levels to secure relevant documents and literature and conduct interviews with key informants. The people in the research areas were likewise sought to gain their insights on how government policies affect their lives with regard to land and forest use and management.

On the other hand, the Natural Science Team (NST) was formally integrated into the project in December 1992. NSs did their chores by collecting samples and testing of benthos micro-organism to measure water pollution, analysing soil quality and rate of erosion through the run-off gauging instrument, and gathering of tree species for biodiversity test.

An analysis of Annexes 8 and 9 would reveal that most activities, regardless of component study, centred on series of discussions concerning the focus of the study, framework of analysis, approaches and methodologies, and administrative issues. Many of these concerns should have been settled and tackled at the stage of proposal development.

The inability to agree beforehand among FRs on the aforesaid issues consequently affected the project's timetable of key activities, i.e., study site identification, community surveys, CDs, literature review and key informant interviews, validation of findings, and biophysical analysis.

The delays also proved to be too costly for the project as it encountered a budget deficit as early as February 1994 due to peso-dollar exchange rate fluctuation. This prompted the project staff to request for additional funding from IDRC[21] as the cost of project administration became

exorbitant. This was the period when census results printouts have just been made available and the instrument for community surveys has yet to be designed.

Another factor cited by informants that contributed to the late execution of activities was the high turnover of project staff especially among the NST. Annex 5 illustrates that no one from NST acted as project leader from April 1994 until the end of project life in November 1994. The head of the entire research project was likewise affected exhibited by non-continuity of a single person to manage the project from its inception to its completion. In fact, not a single component study team remains intact in the entire duration of the project's life -- effectively, having only 28 months.

Thus, the inability of the project staff to agree on the focus, methodology, approach, framework, and overall direction of the research exacerbated by organisational and administrative problems explain inadequacy of inputs and untimely execution of activities. These factors have affected not only the quality of project outputs but also the satisfactory response to the objectives of research.

3.2 *Project Outcomes*

Outputs (Products, Services, Processes)

Among the more tangible output of the project are: (1) publication of five (5) CSC working papers (WPs) (two [2] of which are forthcoming) with a printing average of 200 copies per WPs (see Annex 12 for details); (2) delivery of three (3) papers in local and international conferences and fora (see Annex 11); (3) generation of baseline information from six (6) research areas through the conduct of census and survey; (4) production of biophysical data from two (2) study sites as a result of soil and water tests; (5) printing of *Komiks* (type of illustrated literature usually patronised by the masses) with about 2000 copies and brochure, roughly 500 copies, which summarises research findings; (6) production of a video film depicting research activities in the field (funding secured from Asian Foundation); (7) conduct of two (2) consultation-dialogues attended by GOs and NGOs and a validation meeting in one of the study areas; (8) acquisition of a vehicle (second-hand), office equipments, tools, and field-testing materials (see Annex 13 for list of equipments); and (9) granting of a fellowship to a former CSC Director to undertake her Ph.D. studies at the Catholic University of Leuven in Belgium.

According to the project's research staff, the publication of scholarly materials has enhanced the image of UPCB as a leading institution of learning on Cordilleran affairs in the region. It provided CSC the opportunity to increase its basic research materials through its accumulation of baseline information on selected sites concerning land and forest resource use and management. While the production of *Komiks* is an attempt to translate academic research findings to a more popular fashion, understandable to the basic masses, an intention to bring UPCB closer to the people.

The conduct of a series of CDs broadened its linkages with both government and non-governmental organisations while a validation meeting (sharing of results with the target community) enriched the project's report. Moreover, its acquisition of office equipments, materials, and other research-related tools enlarged the capacity of CSC to embark on future experimental as well as non-experimental studies. Finally, the granting of a fellowship to a senior faculty of the College contributed to the development of its human resource.

Certainly, most if not all the tangible outputs appear to benefit the CSC and UPCB. The discussion of *Reach* below indicates that based on limited data and interview with an informant, tangibles have not been properly disseminated and communicated. Hence, utilisation and possible impact have been negligible, if ever there is any.

In the process of finalising this paper, two (2) other informants were sought who were directly involved in designing a national policy regarding the rights of the indigenous peoples' in the Philippines.[22] On October 29, 1997, the policy became effective as the President had signed it into a law – Republic Act 8371 otherwise known as the "Indigenous Peoples' Rights Act" or IPRA. The information derived from the interview can be an initial appraisal of the project's impact on policy makers.

The informants related that they were not aware of any studies conducted by the CSC regarding the indigenous peoples. In various public hearings and consultations conducted in Manila and Baguio City (one was made in Baguio Convention Centre fronting UPCB), none from CSC-UPCB was recorded to have attended. They say that these meetings and consultations were made public and publicised in major national and local dailies aside from national and local radio stations.

They believe that it is incomprehensibly that no one, especially from UPCB, hear about them when fora have been "enthusiastically attended by several government agencies and non-government organisations,

including 'left-leaning' mass and peoples' organisations." In fact, several of the NGOs mentioned were the same NGOs which CSC reached in the course its research.

Although informants admit that public consultations are made intermittently, they state that hearings have become intense and frequent from 1992 up to the time the legislative bills (House and Senate Bills) were finalised in the bicameral conference committee.[23] They state that among the position papers submitted to them by different GOs (including local government units of Cordillera) and NGOs in the process of crafting the bill, none came from CSC. Obviously, not a single of CSC's publications and researches ever reached them and considered for policy making.

"If we know that CSC has been engaged in the study of indigenous rights concerning land and forest management, then we should have invited them to attend our public hearings and consultations" commented one informant. Informants were even surprised to hear that a certain Cordillera Studies Centre exists in UP Baguio. As one senior FR admitted, he does not know whether the research outputs have been used by the Philippine Senate. This illustrates the absence of a mechanism that will ensure that researches are utilise by the Philippine government in the formulation or implementation of policies concerning the indigenous people.

Apparently, CSC has not made its presence felt, at least to some of the country's policy makers. Its publications and researches (Working Papers) have not been properly disseminated and communicated to people and institutions directly involved in policy making, contrary to what FRs have mentioned (see *Reach* below). The mere fact that policy makers have scarcely heard of any of CSC outputs nor read about it, indicates the inability of the project, and even previous projects for that matter, to influence national policies. Thus, it is unlikely that the research will have any impact on this regard.

On the other hand, intangible outputs were manifested through the development or improvement of skills, awareness, attitudes, knowledge, and technologies. The conduct of regular "brown bag" meetings (see Annex 6 for discussion highlights) was considered by informants as a mechanism that brought key project staff as well as research assistants (RAs) together in one table where activities, information, issues, concerns, and problems are shared, despite what seem to be incessant disagreements and debates among FRs that transpired in the process (as earlier mentioned). Given that component studies operate on a

decentralised manner, "brown bag" meetings serve as a venue where one gets to know each one's activities both in the field and off the field.

Moreover, the process allows both FRs and RAs to be familiarised with issues the project intends to address especially in the area of sustainability and biodiversity. Apart from project-related discussions in "brown bag" meetings, three lectures were rendered relevant to the study (i.e., evolution of commercial vegetable gardening in Palawan, system of community resource accounting, and statistical analysis of biodiversity). What transpired in CDs and conferences attended (both local and international) were also echoed, thus the process broadens and deepens research staff's appreciation on the relevance of its activities.

Several RAs who have *no* social science background acquired skills in the conduct of census, survey, and key informant interviews as well as in data analysis. One RA for instance, acknowledged the project for giving her the chance to learn SPSS (Statistical Package for Social Scientists). While a senior researcher was given the opportunity to be one of the co-authors (the rest are UPCB's faculty) of a conference paper delivered overseas.

On the other hand, those with social science and natural science background were able to apply their "book knowledge" in the field and exposed to the rigors of field study. Inasmuch as there is less field supervision of RAs coming from FRs, the former were able to develop and fortify their own coping mechanism to respond to the practical needs and demands of research.

Another significant intangible output was the occasion the project yielded to natural scientists who were enjoined to participate in the study. Although the experience was less satisfactory, it broke the dominance of social scientists in CSC on one hand, and disturbed what seemed to be a cloistered character of natural scientists on the other hand.

Adjustment may take some time when the two groups may be able to work more collaboratively as the pains of growth eventually disappear in the process of continuous interaction. Apparently, the experience expanded and tested one's tolerance and patience. In a world where studies have become thematic and multi-disciplinary, being tolerant and ability to respect differences are imperatives. Definitely, the project made an impact on this area.

Conceivably, intangibles are not intended outputs which are realised and happened at points all through the life of the project as it is implemented and as it is concluded. They are derived products and outcomes created

and emerged in the process of undertaking the research. Often, these emanate and are configured beyond one's consciousness and efforts.

In other words, intangibles are non-material and non-physical outputs which an individual gained as a result of his or her engagement with the project. And sustainability of intangibles can best be manifested through the individual's enhanced and expanded capability to undertake similar or related studies at a higher plane, extended dimension, or greater heights which can occur either in the same institution or in other institutions.

Inasmuch as intangible outputs eventually become part of one's being and are weaved into the individual's capacity, learnings and skills may not only be used in current endeavours and future undertakings but they may also be transferred. The transferability of intangibles shows that they have a higher potential of sustainability compared to the tangibles.

Among the research staff, it seems that the RAs have acquired more intangible benefits. Since majority of the RAs were hired on a contractual (project) basis, their services were terminated at the end of project's life. At the time the case study was conducted, only the project's senior researcher remains with CSC. The rest left already and have to be reached and requested to visit CSC for the interview (at least those who remain in Baguio City and its suburbs).

Among RAs interviewed, one is currently taking up Environmental Science in one of Manila's universities; another is in Law School in Baguio and has taken especial interest in indigenous laws; while another works with a government agency and contracts out data processing service using SPSS which she learned from the project. They (including the senior RA) acknowledge that their involvement with the IDRC's project has given them not only new knowledge, skills, values, and experience but also the encouragement and challenge to seek for additional information regarding Cordilleran affairs, know-how in processing and analysing data, and paradigms to better explain the realities the indigenous people are in.

Likewise, their exposures to the rigours of research, administrative problems, and conflict between and among FRs have yielded them the chance to appreciate the differences of people and made them creative in solving issues and concerns (especially in the field) without much supervision and guidance. They say that "negative experiences" have opened up new avenues for learning while positive ones have heartened them to achieve "greater glory," so to speak.

Those who were not available for the interview or cannot be reached are said to be involved with GOs and NGOs doing research, some perform administrative work, one was elected as a village official, while others have gone overseas to work.

The earlier discussion depicts that tangible outputs have limited effect, reach, impact, and are less sustainable (see *Reach* below for more discussion) unless shared with the local and national communities as well as utilised to enhance peoples' empowerment. Moreover, un- or less-shared tangibles do not only have minimal effect but may also prove to be costly as these are highly dependent on funding support (publications, attendance to local and international conferences, CDs, equipments, etc.).

Intangibles on the other hand, have innate multiplier effects as these become part of the individual's being and consciousness. The knowledge, skills, experiences, values, and paradigms are non-material and qualitative things which cannot be taken away from the person once acquired. They can only be increased but never diminished. Neither can they be limited nor suppressed but expanded and transformed into a higher dimension as the individual continually utilised them. In fact, the inherent nature of intangibles as transferable make them sustainable.

Reach (Beneficiaries)

The project objectives are silent regarding the beneficiaries of research outputs. In fact, key project leaders admitted that there was no conscious plan to make the indigenous people as beneficiaries of research nor does it hope to be an input to better policy formulation or alter existing policies found to be contrary to sustainable land and forest management. In other words, it is beyond the imagination of CSC to utilise research findings other than to satisfy project goals as defined in IDRC-approved project proposal.

The constraints of time and limitations of the case inhibited the case study to gain access with possible direct and indirect or actual and potential users which project's outputs could have reached.[24] Apart from a farmer-co-operator who was interviewed in the course of gathering data for this case, there was no chance to meet other people from the grassroots communities.

Nonetheless, it is noteworthy to cite how the farmer reacted on the project and what he felt about the research process inasmuch as he was one of those which the study has effected in spite of the project's minimal interaction with the people and community at large.

According to the informant, he was tapped as a respondent to the project's census and survey. Further, his vegetable farmlot was used to install the run-off gauging instrument (a device for monitoring rate of soil erosion). At the same time, he did the monitoring and recording of data derived from the device. In exchange for his services, he received P 500.00 (roughly C$ 28.00) a month as "honorarium."

He said that when he was asked if the run-off instrument can be placed in his farmlot, his first reaction was: "it is alright as long as my plants will not be affected." He related that he was the only one who knew about the project in the community. The people even thought that he was "looking for gold" while he was digging the soil to fix the instrument, short of making fun of what he was doing.

The informant recalled that he did, as requested, the collection of soil erosion data for two (2) months only (January-February 1994) and discontinued it as he felt that it is taking his time too much. CSC later observed the erratic recording of data and had an RA instead to do the monitoring for the months of May to October. The informant further expressed that he only happened to know about the end of the project when the instrument was pulled out from his land. He declared that he neither heard anything about the results of the study nor anyone ever visited the community since then. Only the hole dug out by the farmer when he installed the instrument (now fully covered by grass at the time of the field visit) remains.

In addition, the farmer said that his and community's life were basically the same before the researchers came and after the end of the project. As he stated: "... the peoples' lives were unaltered and they just continue their usual day-to-day activities as they used to be." Apart from being a source of information -- accommodating questions and requests from researchers, including the case writer (a kind of politeness typically shown by rural folks) -- the community does not have much interaction with the researchers nor was it properly mobilised in the conduct of the study.

The farmer confided that the intervention and assistance rendered by the Department of Agriculture's (DA) Integrated Pest Management (IPM) Program is better appreciated and supported by the people compared to the CSC's research. The program involves the education of vegetable farmers, through the DA's "Farmer Field Schools," on the use of a natural predator -- diadegma -- against the Diamond Back moth (a kind of pest) which has affected the vegetables of farmers in *Paoay*.

The Field Schools were swarmed by the farmers as the technology has a direct impact on their livelihood -- pests have been effectively controlled and increased farmers' production and income. The mobilisation of the farmers was never a problem. The benefits of the technology have a mobilizing effect. Even farmers who were not able to attend the educational program learned about the technology through their co-farmers.

This is a case where the people taught the techniques among themselves. The transferability of DA's technology made it sustainable. The experience shows that once the people are convinced on the relevance and responsiveness of a program on their lives, the impact of such is undeniably great.

In an interview with an officer of the Municipal Agricultural Office (a field office of DA in *Paoay*), he said that he had heard about the UP's study and had seen some of its researchers in the community. He recalled that some of UP's staff also attends DA's Farmers Field School. He stated further that:

> ... apart from getting information from our office regarding their study, which I really do not understand, there was not much interaction. They just go on with their research and we do our own. We don't even know what happened to their study.

This implies that the project was not able to establish a strong linkage with a government agency which does direct service delivery to the community where the study is being undertaken. Considering that DA's activity is highly relevant to CSC's research, a strong collaborative arrangement becomes imperative. Apparently, pest control, soil erosion, quality of land, culture, and policy are areas which are interrelated and intricately intertwined. They all affect people's quality of life.

Henceforth, the issue of community involvement in the process of research is a significant feature in making the study's outputs more relevant, "usuable," and responsive especially if it concerns peoples' lives. Moreover, disseminating and communicating research findings to the people -- who need them most -- have a significant bearing on the impact of the project. In this particular case, the research does not seem to have any impact at all by the manner it was done and how the informants felt about the project.

The non-participatory character of the study flows from the nature of research. Although there were attempts, towards the latter part of project

implementation, to make the community a part of the study, it failed to convince the people that the study is relevant to their lives. For example, the validation meeting held in late November 1994 in *Suyo* and *Patay, Sagada* was done simply to check for any discrepancies between what CSC has written and responses of the people on land and forest resource use and management. The CD between GOs and NGOs held on September 17, 1993 was called to get inputs from the participants in preparation for a paper to be presented in the Third National Social Science Congress in December 1993 concerning GO-NGO partnership in policy formulation in the forestry sector.

In the course of the study, seven (7) national government agencies, two (2) local government units, seven (7) non-government organisations, and a business corporation were informally linked with the research (see Annex 10). The Benguet State University (BSU) was involved in the project a consequence of hiring a soil specialist who conducted the soil and water analysis at the time when UPCB's natural scientists cannot continue their services. Annex 11, on the other hand, bares the list of conferences, meetings, and fora attended by CSC's staff where research findings were presented. Informants mentioned that these were participated by a small number of academics.

Unfortunately, the absence of data on how and in what ways the aforementioned institutions were affected by such linkage cannot be ascertained. Nevertheless, a feedback made by a CAGIN-IOG (Canada-ASEAN Governance Innovations Network-Institute on Governance)[25] consultant who visited Baguio recently (November) to appraise its NGO partner (which happens to be the one of the NGOs tapped by CSC in the study) may be able to provide an idea on how the project is seen from the perspective of one of the CSC's supposedly project "beneficiaries."

The consultant is a classmate of mine in college. Prior to his Baguio visit, he inquired about the NGO which he is scheduled to confer with. Having reviewed the project's papers, the name of the NGO is familiar. I requested him to check on any feedbacks regarding its participation with the IDRC's research. Later, an e-mail message was sent to me concerning his impression on the NGO. A part of which reads:

> I learned from a number of them (members of the NGO) that UP-Baguio researchers have used the organisation as 'social laboratory,' treating most of them as objects of research. I was surprised to find out that nobody from the Cordillera Studies Centre is actively involved in the NGO's activities and projects even though the secretariat is just across UP-Baguio campus.

The note reveals that the project has not been successful in terms of eliciting the active participation of the NGO in the research process. It was also confided that the NGO "harbours ill-feelings towards CSC" for "using them in a study without even informing them the results of the research."

Regarding the project's Working Papers containing the study's output (five [5] WPs, of which, two [2] are forthcoming), informants said that these have been disseminated to 150 institutions (universities, GOs, NGOs) both locally and overseas under CSC's journal exchange program. Some are given to select local government executives and scholars. Respondents of CSC's research, on the other hand (even in previous projects), "rarely, if at all, receive these publications" as mentioned by an informant.

Similarly, *Komiks* (written in local commercial dialect) have been distributed to 535 local government units (LGUs) in the Cordillera while brochures (concise discussion of research results) are said to have reached 162 Cordilleran legislators of the national Congress.

There is no verifiable evidence that can attest how the WPs and *Komiks* have affected their recipients, especially the policy makers, aside from what has been related earlier. Nevertheless, a seasoned researcher (who remains to be an RA) of the project commented that the *Komiks* brought in concepts and values which are "alien and incomprehensible to the culture of the indigenous peoples of Cordillera." Reviewing the *Komiks* she declared:

> What's the point of bringing in the name of a cartoon show (referring to `X-Men' in the *Komiks*) here which is known only to those who watch televisions? How can people who have lived for generations without electricity relate it?

It was further stated that the *Komiks* inferred that the people are to be blamed for destroying their land (through the use of chemical fertilisers) and forest (indiscriminate cutting of trees to build lodging houses for tourists) and advises them to return to the traditional ways of farming and conserve the scarce forest resources.

According to her, the message is grossly unfair as it is the peoples' culture which is responsible for protecting their resources and Cordilleran environment. The indigenous peoples' farming methods, e.g., terracing the mountain slopes and use of organic fertilisers, are most sustainable. She added that culture also prevents indiscriminate cutting of trees as trees must be used only to build their houses.

She believes that poverty, government negligence, commercialisation of agriculture, and influx of lowlanders in mountain villages are the problems for the destruction of Cordilleran environment. "The mountain people are the first casualties if they will destroy their environment. So the issue of environmental protection is a matter of survival for them," the informant concludes.

The statements simply reveal that *Komiks*, was drafted and finalised by people who do not really understand Cordilleran realities. RAs contend that the *Komiks* may not be appreciated by the people and they want it revised. FRs even admit that CSC does not have a monitoring mechanism to gauge how their outputs are being utilised, if ever, by the people or institutions which have availed of them. From the information gathered, it looks like setting up of a feedback system has not been thought of after three (3) years since the project ended.

There appears to be no deliberate and conscious effort on the part of CSC to actively and meaningfully disseminate and promote the findings of the study to policy makers ***beyond*** their publications (including *Komiks*), CDs, and community meetings which proved to be inadequate and unsustainable, if not inflicted with serious weaknesses.

Impact

As stipulated in the project proposal, the research is expected to create an impact in two (2) fronts: One, at the level of policy makers whereby research findings can be used as bases in crafting legislations, implementation guidelines, and government issuances and executive orders in the areas of sustainable natural resource management; and second, at the level of the community wherein the local populace may be able to understand and make use of the study's "scientific findings" to explain the relation between their cultural practices in land and forest resource use and management on one hand and sustainable development, on the other hand.

As far as the information derived from the case study is concerned notwithstanding its limitations, the research project failed to create any impact at all at the policy level, in the community and more importantly on the indigenous people. The Technical Summary Report (TSR) itself (prepared by the research team) categorically admits that the research made no impact, at least, at the community level and attributes this to the "pure research nature of the project." Notably, the Project Completion

Report gave a less satisfactory rating on the development impact of the project.

While the TSR regarded impact to have manifested on the policy-making process through the CDs conducted with GOs and NGOs in 1992 and 1993, it was not able to present any indicators that the study's findings were used in policy formulation or implementation. Results of interviews with those who are directly engaged in framing legislative and policy agenda of the national government show that CSC's studies are hardly known nor CSC had made an effort to make itself felt in halls of Congress.

At the local level for instance, a field officer of DA in the municipality of *Paoay*, where both the NST and SST made their studies, perceived the project to be purely academic and does not have any policy implications inasmuch as DA's office played a passive role of simply providing the researchers their information needs. While a farmer in *Paoay* for example, confided that the study "does not make any difference at all" in his life and family and in the community -- indicating a lack of or neutral impact, to say the least. At the national level, informants were not even aware of CSC's research at the time the issue of indigenous rights was being intensely and extensively debated in all levels of government.

In other words, having contacts with GOs and NGOs or having policy makers in CDs cannot be presumed to have influenced or created an impact on policy making or implementation. From the data gathered, most GOs and NGOs were used to fill in data gaps of the study. Hence, it cannot be claimed that the institutions have been active partners in the research process. It may have broadened or established the linkage of CSC with the GOs and NGOs concerned but mere linkage does not necessarily denote that research findings of the project have been translated into policies.

Perhaps, the impact of the project can be more seen from the perspectives of the research personnel because of the character of research -- serving the interest of the academic institution. As cited earlier, the study is an interdisciplinary research which failed to become. It tries to bring in two broad sciences, i.e., social science and natural science, together into a single project. An undertaking that is not actually new to the majority, if not all, of the scientists concerned. The impact occurs on the process of research.

It is to be noted that the CSC has been traditionally a part of the Social Science Division of UPCB. As such, researches were performed by social scientists without much participation from faculty of other divisions of

the College. As the IDRC project requires the participation of natural scientists, CSC is constrained to open its door to the Natural Science Division and asked its counterpart to do the technical part of the research – the biodiversity analysis. Nonetheless, CSC and IDRC as well (through its Senior Program Officer) think that participation of NSs would be necessary after the sixth (6th) month of project implementation (for related discussion see also *Rationale* and *Context* above) even though appointments of natural science team's project leader and study leaders were done much earlier (see Annex 5).

The decision impressed upon the NSs that they are simply performing an auxiliary role in the project. Their non-participation in initial but vital stages of project development – problem identification, conceptualisation, research design, and direction setting – was perceived with resentment as they feel that their functions, tasks, and responsibilities were imposed on them rather than mutually agreed upon.

On the other hand, the social science team (SST) contends that CSC remains to be the unit responsible to the outcome of the project and has the prerogative to define the functions of the project's personnel. Annex 14 shows the dominance of SSs in the research staff, controlling three (3) of the four (4) study components (see Annex 4). Given such composition, the natural science team (NST) considers the project mainly a social science endeavour rather than an interdisciplinary one.

On this regard, "brown bag" meetings which was originally intended to be a venue where activities of component studies are to be coordinated and integrated became the arena of debates between social and natural scientists on the approaches, methodologies, and frameworks of the study (see Annex 6 for discussion points). The points of contention rest on the inability of two types of scientist to appreciate the meaning of each other's work relative to their disciplines.

Indeed, the presence of the project made a difference both to the personal and professional lives of the social and natural scientists. It provided a mixture of positive and negative experiences for the entire research staff. The FRs share the sentiment that the continuing debates and arguments among themselves (considering that each one has their own reason), in one way or another, strained each other's relation apart from a tiresome process one undergoes.

Consequently, the exercise and process of arriving at a decision that is mutually acceptable to everybody did not only affect the work schedules of the project but also drained the researchers – personally, i.e.,

emotionally and intellectually. The experience, to many FRs, is disgusting and repulsive. And in many ways, considered to be negative.

Conceivably, the recognition of the negative effects of the experience as it impacts on the quality of the project's report is in itself positive. The SSs came to realise that social science has its limitation in understanding Cordilleran affairs. In fact, they welcome the idea that CSC be transformed as a research centre at the College level rather than be confined at the Social Science Division.[26] On the other hand, NSs admit that their experience with the project has given them a lesson on the importance of making their technical study more comprehensible and properly communicated to the people.

It cannot be ascertained how and at what point in the research process the more positive outlook on interdisciplinary research came about. It can only be surmised that the more positive reaction was an afterthought as the interviewees respond to the question. In fact, in the course of the interview one can feel the strong resentment which SSs and NSs hold on in their minds against each other. A wound that has not completely healed three (3) years after the termination of the project.

3.3 *Analysis of Impact and Enhancement of Outcomes*

The case depicts that the project scantily created an impact where it is planned to make -- at the policy process and policy makers and in the community particularly among the indigenous people. Instead, impact can be more seen on the institution and its research staff that implemented the project -- the Cordillera Studies Centre.

By virtue of the number and quality of tangible and intangible output as well as the extent the project had made a difference, data seem to indicate that CSC has absorbed the impact both in its positive and negative forms. However, the sustainability of such impact remains uncertain as this primarily depends on the manner and in what ways CSC utilised its own outputs. The absence of any information and data on this aspect constraint the case study from making any statements, much more speculations.

Factors Affecting Project Impact

The inability of the project to impress an impact, as it was initially conceived, on the policy making process and policy makers and in the community can be attributed to the following factors:

1. ***Unclear and undefined beneficiaries or users of research***

Although the Section C of the proposal has identified the expected results and possible impact of the project on national and local policies and the community as well, research implementors (conscious or unconsciously) have derelicted to comply with the said provision. In spite of various "brown bag" meetings reviewing the project paper and direction of research, experience has shown that the beneficiaries and users of project output have not been kept in mind.

Many of the informants, if not all, repeatedly pronounced that the project was not able to identify and consider the beneficiaries and potential users of research. Apparently, this is contrary to what the proposal states. A remiss on this aspect debilitates whatever impact the project conceives to create on the lives of people and public policy.

Given that the study intends to affect peoples' lives and government's policies relative to sustainable land and forest management, it becomes imperative that the beneficiaries and users of research be identified and considered at all times. The values of relevance, responsiveness, utility, and client-focused is paramount if research engaged in development studies (such as this) is to be authentic and true to its commitment.

It is not enough that researches find out new knowledge or discover something novel. For an underdeveloped country, like the Philippines, research for the sake of research becomes a luxury, if not innocuous. Research must transcend and go beyond the issues that satisfy its own needs or researchers psychological needs and anxieties. It must be able to answer the question ***to whom and for whom does research serve***?

People (especially the indigenous people) who have lived for generations in poverty, ignorance, disease, and powerlessness would want an answer to their miseries beyond what the their culture provides. For a government that has been apathetic to peoples' plight and callous to the cries of the marginalised has to be jolted, shocked, and informed that their policies are not only irresponsive and irrelevant but also oppressive.

The academic community (including research institutions) has an important role to play and significant duty to perform. Being a generally non-political stakeholder, it must uphold the truth, what is proper, and what is necessary given a specific juncture and circumstances in one's national development.

Research therefore must serve a certain end. Not an end for itself but an end that serves the interest of the people as well as national aspirations. In other words, beyond the functions of research, it is a commitment to advance embody the ideals human development. Thus, the identification of for whom one is doing the study or for what end one does it is basic and fundamental. Unable to answer these questions will simply render the research irresponsive and devoid of any social relevance.

Needless to say, the identification beneficiaries and users of outputs of studies are basic concerns if impact is desired. Inasmuch as the end users would be the final beneficiary of the research, impact consequently becomes sustainable.

2. ***Non-participatory strategy in carrying out the objectives of the study***

The methodology applied in the study was fundamentally non-participatory (see *Strategy* above). As discussed earlier, the people, government agencies, and non-governmental organisations collectively serve as source of information needs of CSC. Neither were they involved in processing and analysis of data derived nor substantially informed of what happened to the inputs they contributed for CSC to complete its study.

Given the methodology and process the research proceeded, it is not surprising for the people and NGOs and perhaps GOs, to feel that they were simply used and did not get any benefits whatsoever from the study. Conceivably, a valid claim. The non-participatory character of the study, as confirmed by informants (see *Objective* above), flows from its oversight to identify (wittingly or unwittingly) the participants, beneficiaries, and users of research as well as their roles in the entire process of project implementation. Stakeholders were reduced to mere passive (see *Strategy* above) respondents.

Apart from the non-identification of participants, it looks like the definition of a "descriptive research" by key and senior FRs is misconstrued. FRs tend to use the nature of research as "descriptive" to explain (if not an excuse) the non-participatory methodology and strategy in achieving the objectives of the study.

A descriptive research need not necessarily non-participatory or participatory research has to be non-descriptive. Certainly, a descriptive study can be participatory in its methodology and a non-descriptive research design can be non-participatory. The methodology of the study is

not defined by the nature of research and neither the nature of research is identifiable by the methodology used.

Largely, the nature and methodology of research is defined by the **objectives**. The clear intentions of the study -- the whys, wherefores, and for whoms -- define the kind of research and its suitable methodology. Except for biological and physical research with non-human species as samples done in laboratories, qualitative studies such as this one can be made participatory.

Participatory or non-participatory is more of an approach in research. In a study where the lives of people are at stake and implementation of public policies has social, economic, political, and cultural effects to the entirety of the nation, it is a must that people, NGOs and GOs concerned be actively involved.

The civil society's sense of participation and involvement in critical stages of project's conception, implementation, and dissemination of findings will accentuate its sense of "ownership" to the study. And ownership to a piece of research will enhance society's identification with the study concerned. Definitely, this can make a difference.

Unless the stakeholders in a project share the difficulties, facilities, and benefits of research can the study make an impact both in the environment (policy and societal) and peoples' lives. Furthermore, it will assure that such impact becomes sustainable -- enhancing peoples' power and power of research not only in understanding social realities but in changing it for the better.

3. ***Inability to establish a clear mode of research utilisation, dissemination, and monitoring-feedbacking system on the application of research outputs***

Incognisant of the users and clients of research outputs, a mechanism how the products may be brought into fullest utilisation was not well thought of. In a similar vein, a producer who is not conscious of the market one produces for will unlikely conceive a market and distribution strategy, much more contrive a design on how to use the product or how its value can be maximised or be of benefit to the user. Worst, if one produces with unclear intentions but simply because there is available funds for it.

As earlier mentioned, tangible outputs have been limited to the publication of working papers, conference papers, community profiles, technical studies, *Komiks*, brochures, video film, and acquisition of a

vehicle and office equipments. As the study is a descriptive and non-participatory, most of the papers produced (including the *Komiks)* plainly reflected and articulated either the people's land and forest use and management practised for generations and their changes or described the process of national and local policy-making (the links between the two are not clear and dynamics of interaction are not well captured).

How the results of study can change peoples' lives and be an input to craft better and improved policies in the future cannot be ascertained as the mode of output utilisation is not explicit. For instance, a community situationer would be relevant to the people if it can be used to alleviate poverty, ignorance, disease, and enhance their role in local decision-making process. If it simply expresses their situation (the *Komiks* even distorted it and blame the people for their current predicament) or helps them understand their condition, then it only prolongs their miseries. What is needed is a study that leads to action. One that shows them how to resolve their practical and concrete problems. In other words, a study that is relevant and responsive

On the other hand, documenting how policies are made and the processes that entail policy-making and implementation become superfluous for policy makers. These have been long established by laws, pre-determined rules, legal procedures and practices. What is needed how current policies affect the welfare and well-being of the marginalised people of Cordillera. What policies are needed or how present ones can be improved to advance the interest of the indigenous communities. In other words, a policy analysis becomes more appropriate rather than a study on how policies are formulated, conceived, and executed.

Evidently, tangible outputs need to be translated into ***"usable"*** form and relevant to the user to make them sustainable. They must respond to the practical (both short and long term) needs, problems, issues, concerns, and interests of those who are directly and indirectly affected. For a participatory study and action-oriented research, what is more important is not to tell the people **what** their situation is (they know it better than academics) but **why** they are in that situation and what can be done to improve their condition. For the policy makers, it is less significant to tell them **what** they are doing but unravel the reasons **why** they are doing it or why they did it (policy) and demonstrate the consequences of what they have done as well as identify policy interventions that will bring in a better future for the people.

Once the people and policy makers have well understood the whys and wherefores of utilising research outputs, monitoring of such utilisation

would come in easily as the stakeholders themselves would be checking on and regulating the use of the products of research. Even the safety and appropriate utilisation of outputs would be likely secured and guaranteed. Hence, prevent some interested or affected stakeholders or key actors in the society (i.e., politicians, business or corporate interest groups, international organisations, etc.) to make use of research findings for their own ends.

With dissemination, the ventilation of research outputs has been confined to CSC's mailing list, CDs, and a community meeting. Likewise, feedbacks on outputs are relied on the same system. As documented in the case, mechanisms for dissemination and feedbacks were inadequate and ineffective in deriving substantial reactions from the study's outputs.

For example, it would difficult to get incisive feedbacks from people or institutions who received the research outputs through the postal system. CDs were conducted primarily with the objective of getting inputs (the first for the research and the other for a forthcoming conference, see also *Inputs, Outputs* and *Reach* above) from participants rather than reactions. While one (1) community discussion was held to check for any discrepancies or inconsistencies between what has been written and what has been said by the respondents. Informants state that the analysis of the study was done by CSC with less participation from the people.

The community "validation" meeting, despite its limitations, seems to be the more legitimate mechanism in getting feedbacks from the study. However, a feedback system is seen more as a process of improving or modifying a research **output** rather than a process of eliciting the active participation of people and institutions in all stages of project development.

Evidently, there is no mechanism or system of soliciting the reactions of communities, government agencies, non-government organisations, policy makers and other key stakeholders to improve on and modify the study's objectives, methodology, strategy or mode of implementation, utilisation, and application of research outputs.

The absence of a participatory feedbacking and monitoring system makes impact unlikely to occur. Henceforth, a strong sense of stakeholders' "ownership" in the utilisation, dissemination, and monitoring of research outputs is imperative for a study to create an impact.

4. ***Untimely delivery of project inputs and execution of planned activities***

As far as CSC is concerned, among the inputs and activities undertaken were the conduct of: community census and survey; consultation-dialogues or CDs; community meeting; and biophysical analysis. As discussed earlier, the deliberations on the "appropriate" inputs to be applied were finalised late and consequently delivered beyond the work schedules. The reason was the inability of the project management to resolve issues concerning inter-disciplinary research as well as problems involving the administration and organisation of the project (see *Inputs/Activities* above).

Given the finite life of the project, the delayed delivery of inputs has affected not only the quality of outputs but also the impact the study is conceived to impress. It limits, if not disallows, the substantive and active process of interaction between the researchers and possible users of research. Likewise, the period whereby researchers may be able to adequately and profoundly analyse the results of findings is constricted.

For instance, there was only one (1) community meeting conducted in the entire duration of project's life, and it was done at the study's terminal month (November 1994). The meeting was held to validate the findings of research with the people. Inasmuch the identification of the communities to be subjected to the study took 11 months after the start of the project and the methodologies adopted (census and survey) made the processing of data tedious, the findings consequently came in late.

Similarly, the conduct of CDs was inadequately programmed with only two (2) for 28 months and an interval of a year in between. Interactions were limited to the research design and policy process as these were done primarily to cull inputs from GOs and NGOs. The opportunity to create a long-term and preferably lasting partnership between the researchers on one hand and the GOs and NGOs on the other hand was missed.

The biodiversity study started late (six [6] months after the project commenced) and understandably concluded at the terminal month (November 1994). This has affected the integration of the community and natural science studies as each one was conducted with less coordination, different frameworks, and contrasting timetables.

Moreover, inter-disciplinal conflicts (refer to *Inputs/Activities* and *Impact* above) which characterised the relationship between the SSs and NSs as well as organisational problems (high turnover of project staff) affected the timely conduct of soil and erosion study. Hence, soil analysis was

confined to the data gathered in one (1) cropping season (5-6 months) rather than the ideal two (2). Although the findings are said to be scientifically acceptable (based on limited results), it prevents one to have a more longitudinal analysis of the quality of soil in relation to land and forest use.

The delays in the application of inputs and execution of activities have not only proved to be costly for the funding agency (committing additional grant as implementation of activities has been overtaken by events -- affected by the peso-dollar exchange fluctuation) but also led the researchers to fast tract (which tends to "short-circuit") the completion activities to meet the deadlines setforth in the project's TOR (Terms of Reference).

Oftentimes, a project which is pressed against time inclines to sacrifice the process over the objectives of research. Given such condition, the achievement of the purposes of the project becomes the primordial consideration rather than the manner the activities have to be done. Inasmuch as the gestation of impact is conceived in the ***process*** of undertaking the research and seldom at the end of project life, giving less attention to the *means* of getting results will definitely affect whatever impact one desires.

In this case, impact has been inconceivable. And whatever potential for its growth was restraint due to the delays in the execution of activities and improper time the inputs were applied.

5. ***Unsustainability of outputs and products of research***

Except for intangible outputs which have a high potential of sustainability, tangible ones have less. The non-translation of tangible outputs into "usable" form that befits the standards, needs, and demands of indigenous people and policy makers (as discussed earlier) makes them non-transferable. By simple extension of logic, the non-transferability of tangible outputs reflects its unsustainability.

Even the project's mass-oriented output, *Komiks*, is perceived to be alienated from the recipients it is supposed to serve. Impact of research outputs thus, rests on accidents -- someone picks it up and uses it or someone translates it (thereby increasing its utility value) and disseminates it. Apparently, this will happen outside of the control and knowledge of CSC.

As aforesaid in the paper, outputs have more beneficial effects to the Cordillera Studies Centre as an academic and research institution. However, the issue whether the institution made a difference to the indigenous people of Cordillera, the local and national governments, and non-governmental and peoples' organisations, is entirely a different matter.

Enhancing Outcomes

Varied lessons can be derived out of the experience. Enhancing outcomes requires a change or alteration on the following conditions as well as augmenting of succeeding inputs:

On research environment

1. ***Institutional transformation of UPCB from a regional unit of UP-Diliman (in Manila) to an autonomous unit***

The transformation of UPCB as an independent unit from UP-Diliman (where UPCB is currently attached) was the subject of discussion while the case study was in progress. Informants say that the outcome of the project has nothing to do with the proposed re-structuring of the UP System. Nonetheless, this is a welcomed move. The transformation requires a major institutional policy change to be initiated at UP's highest policy making body, the Board of Regents (BOR). The present organisational set-up has constricted the fullest development of a conducive research environment as UPCB remains to be saddled with bureaucratic decision-making process. This has effectively affected the operation of the CSC.

As a regional unit, faculty members are governed by the Diliman's faculty manual which has a built-in biased towards teaching staff rather than research (Section 4 of UP-D Faculty Manual). Under such organisational framework, FRs spent less time to do research. Making UPCB autonomous from Diliman would give it more power to decide matters which are distinctly theirs, as Baguio will have its own Chancellor. This will also enhance the flexibility of UPCB to adapt itself as an institution and adopt more responsive policies based on the continuing changes in the needs and demands of research in the region.

2. ***Elevation of CSC as a research and extension arm of the College rather than the Social Science Division (SSD)***

The elevation of the CSC at the College level is another encouraging development initiated by UPCB's Administration. Again, informants contend that the project was not instrumental in pushing for this institutional reform. The arrangement will further enlarge the research components and concerns of the CSC in interdisciplinary, multi-disciplinary, and transdisciplinary research. It will not only hasten the democratic process in identifying problems in research but make future studies more holistic. Since development and ethnic studies are viewed to be multi-dimensional, making CSC under the administrative direction of the College Dean rather than SSD's Co-ordinator will increase the probability of prospective projects of similar approach maintain their strategic focus despite the participation of FRs from diverse disciplines.

Presumably with the Dean on top of the situation, possible conflict in research approaches as well as personalities can be timely and effectively resolved.

On two counts, the institutional change and administrative reform would promote a better and suitable research environment for CSC to thrive in spite of the project's inability to influence these events.

<u>On the research design</u>

3. ***Participation of beneficiaries and prospective end users of research from the stage of design conceptualisation to monitoring and evaluation***

The entire issue of participatory research was practically abandoned, wittingly or unwittingly, in the interest of simply responding to setforth project objectives. In fact, the *process* of addressing a problem in research is equally critical as the answer itself. The quality of outputs is, largely, defined by the mode of acquiring the products of research.

Taking this into account, a mechanism, some sort of a consultative council (composed of major stakeholders, represented by GOs, NGOs, and grassroots communities) has to be structured within the project design to serve as an "early warning device" that will ensure that activities, inputs, processes, and outputs lead toward the maximisation of *a priori* or pre-conceived impact. Apart from its feedback function, the council contains a built-in system that can facilitate the process of organising, mobilising, and utilising resources thus, optimise the impact and reach of a research project.

4. ***Use of dynamic, innovative, and interactive methodology in research***

The "interdisciplinary-ness" approach in research is better, if not best, manifested through the use of a ***synthesis*** of methodologies coming from different sciences and disciplines. The mere involvement of scientists from diverse fields of specialisation does not make the study interdisciplinary. Plainly adding scientists into the project and compartmentalising their tasks according to study's objective may give an impression of an interdisciplinary research, but it is not.

This will only engender disciplinal conflicts among scientists. Creating an impact using an interdisciplinary approach requires not a collation but a ***collage*** of approaches, methodologies, frameworks, analysis, and insights directed into the end goal. It is the use of a ***mosaic*** methodology that makes research inter- multi- and trans-disciplinary. In other words, a synthesis of methodologies must be developed and designed in the early stage of project conceptualisation and sustained throughout the project life.

Otherwise "integration" of research findings after all the scientists have completed their respective tasks would be extremely difficult. In fact, an "integrative" study starts with a well thought, organised and harmonised methodology. It smoothens the process of project implementation and assures that impact perceived is achieved.

Although the integration of research findings is a collective responsibility of the senior FRs and more particularly by the project's head, the activity is better enhanced if key stakeholders coming from the GOs, NGOs, and community concerned share in the process of integrating research outputs. In this way, more impact and outcomes are expected.

<u>On leadership and organisation</u>

5.***Project leaders must be in a position to lead and possess the commitment to carry out the study to its conclusion***

A significant factor in ensuring the positive impact of a project is leadership. The presence of a leader in at least, major aspects of project development is imperative. Experience has indicated that the absence of ***continued*** leadership in practically all levels of project's organisation has reduced the effective and efficient conduct of activities thereby affecting the timely delivery of outputs.

Informants contend that a change in the leadership in the course of project implementation, especially at the Program Head level, affected the momentum of the staff's activities as they have to make the necessary adjustments in terms of the priorities, modes in the execution of activities, and issues to be addressed as seen "proper and suitable" from the perspective of the new leadership. This is apart from the changes they have to do in their individual or collective work schedules, approaches, methodologies in order for them to adapt to the new management styles of the program head and project or study leader concerned.

The relative volatility of the organisation, evidenced by a high turn over of project and study leaders (especially in the NST), has contributed to its instability. In one way or another, the changes in the personalities of leaders have affected the flow project's activities as the personality of a leader oftentimes overshadows the function and power vested in one's position.

For instance, a weak leader is perceived by informants to be lacking in vision and direction. One that fails to steer and unite the group to accomplish the tasks to be done. While a strong one tends to monopolise all the activities of the team leaving the rest of the members doing nothing. The shift in the types of leadership resulted in the constant change of the project's operations, thereby giving a less concentrated focus on what impact and outcomes the study intends to mark.

Among the leaders, the program head performs a key role. He or she must stand above and beyond all other disciplines. Respect from his/her colleagues must be earned not demanded. Likewise, he/she must be able to mobilise individual and institutional support, strengthen linkages, and facilitate the dissemination, application, and utilisation of research output.

Moreover, the maintenance of a huge number of project staff especially among study leaders has only increased project costs and impeded rather than facilitated the effective conveyance of outputs. For example, the community study team has eight (8) study leaders when four (4) is enough (corresponding to four [4] research communities; the policy group has two (2) when one (1) will do; and natural science has four (4) Study leaders whose division of functions is not clear.

In management, having too many leaders whose specific area of responsibility and function is nebulous is not advisable. Often, it creates the overlapping of functions and duplication of tasks and eventually triggering a conflict between and among them. On the part of the RAs or supervisees, too many leaders brings about confusion rather than a

system as RAs are in a dilemma to whom they are responsible and accountable.

The *right* size of the staff is critical in a research undertaking. This is partly defined by the objectives of the study and partly by the values of relevance, flexibility, and client-orientedness. It is the primary responsibility of the Project Management Staff (PMS) to determine the right and correct size of the project staff.

On time

6. ***Problems, concerns, and issues related to project design, organisation, and personnel must be resolved prior to the commencement of the project***

In a study of the indigenous peoples' practices on land and forest management, time is of the essence. Inasmuch as peoples' lives are adapted to follow, (not against) the course of nature, the only way to capture the dynamics of people's usage of resources is to suit the research according to lifeways of people. Doing a reverse process -- putting people in the project's activity chart -- would not only defeat the purpose of the study but equally counter-productive and dangerous.

The problems met by the project, i.e., research design, organisational, and personnel, led to a late start of activities and consequently affected the quality of outputs and outcomes. These concerns must be resolved before the start of the project. For instance, in the research design, the active participation of SSs and NSs needs to be enjoined from the start of its formulation to its completion. Major points of unity between the two (2) sciences have to be stipulated at the early stage not later.

The participation of the project's stakeholders is equally important. They have to be a part of the research process and share in the difficulties and achievements of the design's development. This ensures the participatory character of research. In like manner, issues and activities related to project's organisation must be settled and defined from the beginning. These includes the areas of: planning, staffing pattern, direction, coordination and collaboration, record keeping and management, reporting system, budgeting, and monitoring and evaluation.

Addressing them within the life span of the project would be psychologically stressing to the research staff. In an interdisciplinary research, conflicts are usually inevitable yet generally reconcilable. These must be viewed as opportunities to achieve unity rather than threats to an

integrative study. After all, there is no other alternative but to unite and be together.

3.4 *Public Relations*

As cited earlier, impact of the project is best seen on the institution itself -- CSC-UPCB and direct implementors of project -- rather than on the communities, individuals, policy makers, and institutions it reached. Definitely, the project has left an indelible effect on the capacities of the institution and researchers concerned.

The expressed commitment of both FRs and RAs to persist in interdisciplinary research is an explicit recognition that the project "made a difference" on their lives. These differences are in various forms: a change in attitudes; development of new relationships; improved abilities to respond to new situations in an innovative way; enhanced research skills; heightened researcher's status; sustained interest to learn new knowledge, skills and technologies; and enthusiasm to teach future researchers.

However, the concrete manifestations of these forms are difficult to ascertain given the limitations of the case study apart from the high level of subjectivity of the said intangible outputs. Certainly, these outcomes have the potential to be communicated and transferred to other similar or related endeavours. Thus, making the intangible outcomes sustainable.

The experience, therefore, has a high market and utility value to the people and general public, especially to institutions who want to explore into the regime and domain of interdisciplinary research -- it reduces one's uncertainties.

4.0 Summary

4.1 *Methodology*

Generally, the impact assessment framework (IAF) used in analysing outcome of the project is an excellent guide. Likewise, the concept paper that defines the operational meanings of key terms in evaluating a project provides a clear understanding on the issues and concerns that must be explored. In fact, these two (2) papers extremely help not only in the conduct of interviews, focused group discussion, and qualitative analysis of documents but also in writing the case study.

The ***very*** detailed list of items stipulated in the IAF which the consultant is expected to address is both a strength and weakness of the framework. On one hand, it reduces the possibility of overlooking into salient features of the study while on the other hand, it increases the probability to be utterly concerned with details and fail to see the broader picture and purpose of the study.

Perhaps, the IAF must be able to combine the specific needs and general direction of the study. A balance in the content of the framework has to be struck. In fact, some of the sub-items in the IAF are unnecessary and redundant while others are so minute to unravel. In other words, one cannot underestimate the importance of culling details in research but it is also significant that one must not lose sight of the strategic direction of the study. Otherwise, one would be buried in specificities at the sacrifice of the greater goal.

Another point is on sequence of items. The case would be better evaluated if the context or environment of the project is understood first prior to the discussion of project objectives, inputs, and outputs. In this manner, it can be initially appraised whether the presence of the project is indeed necessary, relevant, and responsive to the needs and demands of the community in particular and the country in general. It should be underscored that most development research and projects in LDCs are not ***actually*** needed. The need is essentially created by most of project's proponents.

The IAF basically uses the input-output analysis in evaluating project impact. In a sense, it tries to look at input as a function of output and output as contingent on input. I think its time to go beyond the input-output framework in spite of its some positive features. Under such

framework, the unit of analysis is the project. Among LDCs, the impact of development or underdevelopment is usually attributed not on the presence or absence of a project but a result of national and local policies which permeate into the local community. Apart from this, impact is also created by international events and phenomena which the national or local government, and much more the local community has any control of.

Henceforth, international and national events do not only serve or be seen as extra-societal or intra-societal contexts respectively where the project operates. The "context" by itself can be the unit of analysis that exerts pressures or facilitates the creation of impact and outcomes rather than the project. The events, are in a way, worthy of evaluation in order to determine how and in what manner the said national and international developments have affected the society, the people, and government.

In other words, impact and outcomes can be evaluated by also looking at the effects or extent of influences national or local environment or even an international event does to a specific community. In this case, the concern is not how or in what manner the project impressed an impact but how and in what manner an external or internal event change or influence the lifestyles, practices, culture, institutions, well-being, and welfare of the people. Although a change or alterations on these can be a function of different factors or a confluence of factors which are difficult to determine, but not impossible, nonetheless a significant area of research which LDCs are wanting.

In fact, the interactive dynamics of these environments is an important aspect to study. For instance in Cordillera, the use of IAF cannot capture the inter-relationship between local practices in land and forest management on one hand and the struggles of peoples to establish their autonomous government in the region on the other hand. The local and international events that transpired which motivated people to chart their own future into their own hands have effectively change peoples' behaviour, attitudes, and perceptions.

This includes a transformation in the psychological and subjective make up of the people as well as in their indigenous institutions. In concrete terms, the change affected peoples' perception on their environment since the issue of local autonomy is concerned with the control of people over their natural resources -- land, forest, and water. Evidently, the re-configuration of community empowerment happens not as a result of a project but caused by events that exerted impact into peoples' lives.

In other words, an impact study need not necessarily be project-focused. It can also be issue-focused and problem-oriented. And an issue may be current and existing or a probable one which may manifest more in the future. For instance, an impact study can be conceived in relation to the present trend of globalisation.

A relevant research area may be concerned with a study of globalisation and its impact to the traditional societies and indigenous peoples. What programs, projects, and policies would be suitable and appropriate to prepare the people to the possible negative effects of globalisation? Or how the people can mitigate the ill effects or enhance the positive effects of the internationalisation of labour? In short, futuristic type of impact study can be explored at this point. The interest is to create and identify a possible scenario where impact can make an imprint. Definitely, this type of research must be highly participatory and inter-disciplinary. An undertaking that may be difficult but worth trying.

4.2 *Results*

As a concluding statement, the experience has displayed that outcomes of the project have been immensely influenced by four (4) factors, namely: research environment; research design; leadership and organisation; and time. As documented by the study, these factors are entirely and wholly responsible on the quality of "impact" the project created. Needless to say, CSC-UPCB has been the ***sole*** beneficiary of the project. The experience it went through is something that cannot be quantified nor measured in whatever terms.

On the part of IDRC, I think it has done more than enough in providing the necessary fund (including in project proposal preparation and supplemental grant) and technical support to the project implementor. Its low-keyed posture in the entire life of the research is most appreciated as it provides CSC adequate freedom to plan and conducts its activities. An interventionist role will not only be frowned on but veil the capability of CSC to undertake interdisciplinary research.

The experience may not be satisfactory but I think IDRC still made a wise investment as a lot of valuable lessons can be learned from it.

Endnotes

[1] The linkage was also mentioned in an appraisal report on the project proposal (see Project Summary, 17 September 1991) as a "special feature" whereby Joachim Voss (Senior Program Officer, Environmental Policy Program) strongly recommended the approval of the project.

[2] For details, see Joachim Voss's letter to Lorelei Mendoza of CSC (11 April 1991)

[3] ibid.

[4] Minutes of Meeting of Project Leaders (22 October 1991).

[5] *Ibaloy* or *Ibaloi* is one of Cordillera's major ethno-linguistic groups inhabiting two-thirds (2/3) of the south-eastern portion of Benguet Province where Baguio City is located and where UP-College, Baguio campus now stands.

[6] NRMP II is considered to be Phase II of NRMP I. It is another research project, entitled "Ancestral Domain and Natural Resource Management in Sagada, Mountain Province, Northern Philippines, funded also by IDRC.

[7] Cordillera Studies Centre Brochure.

[8] Joachim Voss's Memorandum to Odilia Maessen on CSC proposal (15 March 1991).

[9] In a discussion with the community study team, informants believed that their conflict with the NSs was more attributable to differences in personality while NSs tend to think it is on the divergence of orientation and framework brought about by academic backgrounds, trainings, interests and exposures.

[10] Voss's Memorandum, op.cit. (15 March 1991).

[11] There are two (2) semesters per academic or school year.

[12] Teaching is given priority over research. See UP-Diliman Faculty Manual (1989) provision no. 4.2.4.

[13] In areas where the senior researcher cannot be physically present, research assistants have to rely on themselves.

[14] Given the physical terrain of Cordillera, towns and villages can be reached only by land transportation. Accessibility becomes terribly difficult especially during typhoon months (June to October) as roads are oftentimes affected by landslides. Likewise, there are limited trips (usually in the morning only) as public transport drivers find it dangerous to travel at night trekking the

unilluminated, narrow, and non-paved mountain trail apart from deep ravines on either side of the bumpy road.

[15] The senior researcher suggested Paoay as a good representative of the communities studied as the information and data that can be derived from informants are said to be basically similar to other communities.

[16] A term used by informants coming from the social science discipline and stated in the Technical Summary Report (15 December 1994:27) to refer to the type of research project.

[17] The problem is more manifested and intense between the social science and natural science. Policy scientists belong to the discipline of social science who are faculty members of the Social Science Division of UPCB.

[18] Effectively, there were only three (3) major components. Networking was not involved in any networking activity as government and non-government agencies tapped for the study served as sources of information to determine how policies are developed, how NGOs participate in decision making, and how GO and NGOs collaborate. Given the task to document the process and dynamics of policy formulation, implementation, and evaluation, networking and policy study components were combined into one.

[19] As per project proposal, a rapid rural appraisal (RRA) is to be used. However, none of the informants can recall what happened in the process why census was utilised rather than RRA. A program head indicated that the tedious process involved in data collection and analysis in census affected the project's timetable.

[20] There were conflicting dates on the documents reviewed while informants cannot make an accurate response on the exact month the project team made a decision on the focus of the study. The Narrative Report says it was on May 05, 1993 while the Technical Summary Report estimates it on June 1993.

[21] A supplemental grant of C$ 14,434 was granted for use in dissemination of the study's outputs.

[22] One informant is a legislative staff of the Philippine Senate who works with the main author of the bill, Sen. Juan Flavier. The person is in charge of conducting consultations, dialogues, and similar fora to elicit reactions from people and institutions and other stakeholders whose interest may be affected by a proposed bill. The Senate version of the bill was entirely the person's responsibility. The other is the Committee Secretary of Local Governments in the House of Representatives. The person is responsible in the conduct of public hearings and consolidation of various position papers submitted to the Committee which can be considered in framing a bill and eventually the final House version before it is finalised by the Bicameral Committee.

[23] The bicameral conference committee, commonly known as BICAM, is a congressional committee created under the 1987 Philippine Constitution. It is a venue where two (2) versions of legislative bills -- one drafted by the House of Representative and the Senate (the 2 chambers of the Philippine Congress) -- given their differences, are reconciled. The final version of the bill is then forwarded to the President for consideration and signature. Once the President signs it, it becomes a law.

[24] The case writer was allowed to have a maximum of six (6) field days only to gather all the data and information necessary for the case study. Considering the travel time involved (8 hours by bus from Manila to Baguio) to reach Cordillera and difficulty to reach the project's research areas due to weather, terrain, and availability of land transportation (the only means of travel), it was physically impossible to have all the necessary data on hand, especially feedbacks from grassroots communities.

[25] The Canada-Asean Governance Innovations Network-Institute on Governance (CAGIN-IOG) is a non-profit organisation that is engaged in the promotion of effective governance. It collaborates with CIDA, UNDP, WB & EDI, and IDRC in creating, sharing, and applying knowledge about governance. It has a established network with different governments and non-governmental organisations both in Canada and other parts of the world.

[26] The proposal came from UPCB Administration. Informants believe that the proposal has nothing to do with the project's experience.

APPENDICES

TERMS OF REFERENCE
Impact Assessment of IDRC Public Goods and Policy Projects
Case Study Consultancy

1. BACKGROUND OF THE IMPACT STUDY

1.1 Since its inception in the late 1960s, IDRC has supported over 5000 research activities throughout the developing world. While the Centre has invested considerable resources in evaluating this work, it has not specifically undertaken any analyses of the impacts realized by the projects and initiatives it has funded. There is a need now for the Centre to extend its understanding of the influence its development research activities have had over the past 25 years.

1.2 A number of purposes underlie the Centre's interest in understanding the nature and range of impacts of the research it supports: to explore the ways in which research contributes to national social and economic development and the factors which facilitate or impede its impact; to know better the kinds of influences it is having on the development agenda and research capacity of developing countries; to use this accumulating knowledge to improve its own practice; and to inform its international partners and the Canadian public of the importance and quality of this kind of development intervention.

2. OBJECTIVES OF THE IMPACT STUDY

2.1 The aim of the Centre's overall study of impact assessment is to analyze the results of IDRC's investments in research and researchers over the years in terms of the impact they have had on the development process. It aims to deepen understanding of how development research, as supported by the Centre, has contributed to making a difference in people's lives and, from that, to enable the Centre to fulfil more efficiently its role as a development organization and knowledge broker.

2.2 In realizing this very broad goal, the Centre's Evaluation Unit is undertaking a number of initiatives aimed at exploring the range of ways impacts might be realized, for whom, and the factors which influence their realization and reach -- positively and negatively. Sets of case studies are being developed to look at different types of Centre-funded projects, in different regions and sectors and with specific kinds of outputs, such as: commercializable products and services; information and communications technologies; public goods/quality of life contributions; and policy development.

2.3 The activity referred to in these present TORs involves the development, implementation and synthesis of case studies of projects in all IDRC regions, covering each of its main disciplinary sectors, and focusing only on the last two types of outcomes -- public goods/quality of life and policy development. The aim is NOT to evaluate the projects

selected as case studies, but rather to use those experiences as a concrete basis on which to explore the nature of "research impacts" and the factors which influence them.

2.4 Specifically, the objectives of the case studies are:

2.4.1 to document and analyze the outputs, reach and impact[1] of Centre projects which have aimed at public goods/quality of life and policy development results;

2.4.2 to identify factors in the context, design and implementation of these projects which have influenced the types of impacts realized and facilitated or impeded their range and quality;

2.4.3 to synthesize across the cases generalizable characteristics of the impacts of IDRC-supported research activities and factors which influenced them;

2.4.4 from this synthesis, to generate recommendations for improving the development and management of research projects toward realizing more and better impacts more effectively;

2.4.5 to develop a user-friendly framework for assessing and fostering the impact of development research; and

2.4.6 to identify and document those cases which might provide material for IDRC's public information strategies.

3. PURPOSE OF THE CONSULTANCY

3.1 Co-ordination of this project will be managed by Dr. Anne Bernard in Ottawa, Canada. The case studies will be conducted in the regions by researchers as much as possible contracted regionally. Each consultant will be oriented to the project by the project Co-ordinator (or staff of the Evaluation Unit) and report to the Co-ordinator.

3.2 Each consultant will be responsible for ensuring the overall development and implementation of the case study so as to provide a coherent, well-documented and competent analysis of the nature and scope of impacts realized by the project under review. Again, the objective of the analysis is not to evaluate the project as such, but rather to identify, track and assess the kinds of impacts it has had, explore whether it could have had more or larger impacts, and why.

3.3 To achieve this purpose, and using as the analytical framework and definitions included in the attached Concept Paper and Framework, the consultant will:

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[1] see definition of these terms in the attached Concept Paper

3.3.1 document and analyze the outputs, reach and impacts of the Centre projects (identified in Annex 1) which have aimed at public goods/quality of life and/or policy development results;

3.3.2 identify factors in the context, design and implementation of these projects which have influenced the types of impacts realized and facilitated or impeded their range and quality; and

3.3.3 produce a coherent, competent and well-documented analytical exploration of the impacts of development research (proposed format for report Annex 2).

4. TASKS OF THE CONSULTANT

In order to achieve the above purpose, the consultant will undertake the following tasks -- maintaining as regular contact with the Co-ordinator as is feasible:

4.1 Maintain contact with the Co-ordinator and/or Evaluation Unit Officer to review goals, approach and tasks of the case study, and to report on progress;

4.2 Undertake a preliminary file review (see Annex I), review of IDRC Project Completion Reports, existing evaluations and any other relevant documents related to the project(s) to be reviewed (access to documents to be facilitated through the Co-ordinator and/or Evaluation Unit);

4.3 Develop and submit within one week of contract signing, a workplan for each case study, including identification of initial project-related contacts, schedule and approach to data collection (allowing enough flexibility to pursue the project's "halo and ripple" effects), and expected submission date for the report (n.b. completion date of this contract in Section 6.1);

4.4 As applicable and feasible, identify, contact and interview relevant IDRC staff, project personnel, collaborating agencies, government institutions and research output users and beneficiaries.

4.5 Through open-ended interviews (and/or group meetings, as appropriate) gather data on the themes and issues identified below in Section 5.

4.6 Report on progress and preliminary findings to local project staff.

4.7 Write-up the case study, as per the attached case study outline.

5. THEMES/ISSUES OF CASE STUDIES

5.1 In general terms, each case study will seek to identify outcomes of the project concerned, from the perspectives of the various types of people involved with its design, implementation, use and benefits and along as many dimensions of the project as possible and useful to the analysis. This will require identification and analysis of the following broad areas:

5.1.1. project context (e.g. nature of the development and research environments), the development "problem", in which the project initiated and characteristics of the research institution/team;

5.1.2. project objectives, strategies (design and methods) and inputs (e.g. financial and technical resources provided by IDRC, recipient, or others);

5.1.3. the planned and unplanned outputs -- the products, services and/or processes generated through the course of the research as well as at its conclusion -- including new knowledge, individual and institutional capacities, collaborative or power relationships, linkages between policy and practice, changed practices, policy contents or processes;

5.1.4. project reach -- the individuals, groups or policy systems touched by the different outputs of the research, during its implementation and after its conclusion (immediately and, as trackable, in the longer term);

5.1.5. project impacts -- as seen especially by those affected by the project[2], these are the ways in which the project "makes a difference" to an individual, group or policy system. All outputs will not have an impact; there may be many impacts realized from a project without the output actually being noted e.g., new inter-agency relationships forged through joint participation in research training workshops.

6. TIME-FRAME and SCHEDULE

6.1 The case to be undertaken under the terms of this contract will be completed, up to submission of the first drafts of the case study between signing of the contract and September 1, 1997 and will require up to a total of 10 fieldwork days in the Philippines. Following review by the Co-ordinator, the final reports will be submitted by the Termination date of the contract: September 30, 1997.

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[2]These can include both users of the research outputs ie people who decide to engage with the product or try a new process, as well as people who are affected positively or negatively by being in the environment e.g. children who are immunized without actually consenting. An important dimension in this respect is sustainability: outputs which are taken up voluntarily by users, and incorporated into their own knowledge or behaviour systems, are more likely to become adapted and thus maintained.

Annex I

The case study you will complete is the ***Sustainable Land and Forest Management*** project of the Cordillera Studies Center, University of the Philippines, Baguio (IDRC project number 91-0074). This project was chosen for its direct relevance to the quality of life of indigenous peoples in the Cordillera area, as well as its potentially broad policy implications.

Enclosed are project documents relevant to your study, including:

1. An original proposal, dated June 6, 1991
2. Project Summary
3. Notes on project proposal by Yianna Lambrou, May, 1991.
4. Memo on project proposal, March 1991.
5. Trip report of Joachim Voss (IDRC project officer), regarding his February 14, 1991 visit to Baguio
6. List of Research Personnel
7. Message from Joachim Voss to Steven Rood and June Prill-Brett, June, 1994.
8. Research report: State Policy, Indigenous Community Practice, and Sustainability in the cordillera, Northern Philippines, 1994.
9. Research report: Indigenous Practices and State Policy in the Sustainable Management of Agricultural Lands and Forests in the Cordillera: A Summary Report, March 1995.
10. Technical Summary Report, December 1994.
11. Project Completion Report
12. Cover note by Joachim Voss and paper by Lorelei Crisologo-Mendoza, "Bilateral Primogeniture and the Distribution of Land...", 1996.
13. Letter from Fred Carden, Evaluation Unit, to Dr. Gladys Cruz, introducing the impact assessment study.
14. Reply from Dr. Cruz regarding participation in the impact assessment study.

Appendix 2

Travel Itinerary

Date	Place Visited	Activity Undertaken
August 18-23	Cordillera Studies Centre, UP-Baguio, Baguio City	*Interviews with Faculty Researchers* *Community Study Team* Victoria Diaz Florence Salinas Gladys Cruz Cecilia San Luis June Prill-Brett *Networking Study Team* Bienvenido Tapang Michael Cabalfin *Natural Science Study Team* Celia Austria Ofelia Giron *Research Assistants* Alice Follosco (Sr. RA) Magnolia Rosimo Remedios Mangay-at Jacqueline Calsima Adella Mangaliag
August 26	Associates in Rural Development Office Makati, Metro Manila	Steve Rood
September 15-17	Trinidad, Benguet Trinidad, Benguet Paoay, Atok, Benguet	Roger Colting Fred Pilay Diosdado Haight
November 10-11	Senate of the Philippines House of Representatives	Matilde Tayawa Edgar Binaohan

Appendix 3

List of People Interviewed

Program Heads

Florence Salinas (concurrent as Study Leader, CST)
(June 1992-May 1993)

Steve Rood (concurrent as Project Leader, Policy Study, June 1992-Nov. 1994)
(June 1993-Nov. 1994)

Community Study Team (CST)

Project Leader

Victoria Diaz (Patay, Sagada, Mt. Province)

Study Leader

Florence Salinas
(June 1992-May 1993)
Gladys Cruz (Paoay, Atok, Benguet)
Cecilia San Luis (Suyo, Sagada, Mt. Province)
June Prill-Brett (Mt. Data, Bauko, Mt. Province)

Natural Science Study Team

Project Leader

Celia Austria
(Sept. 1992-Oct. 1993)
Ofelia Giron
(June 1993-Mar.1994)

Study Leader

Roger Colting
(May-Nov. 1994)

Networking Study Team

Project Leader
Bienvenido Tapang

Study Leader

Michael Cabalfin
(June-Nov. 1994)
Research Assistant
(July 1993-June 1994)

Research Assistants

Alice Follosco (Senior Researcher)
Magnolia Rosimo
Remedios Mangay-at
Jacqueline Calsima
Adella Mangaliag

Farmer-Co-operator
Diosdado Haight

Municipal Field Officer, Department of Agriculture
Fred Pilay

Office of Sen. Juan Flavier, Senate of the Philippines
Matilde Tayawa

Committee on Local Governments, House of Representatives
Edgar Binaohan

ANNEXES

Annex 1

Objectives of the Sustainable Land and Forest Management Project

Overall Project Objective

To examine how the patterns of natural resource use are defined in local practices in the community, how these local practices are affected by policy and activities of groups interested in the resource, and what these interactions imply for sustainability as indicated by the quality of life and environment.

Specific Objectives

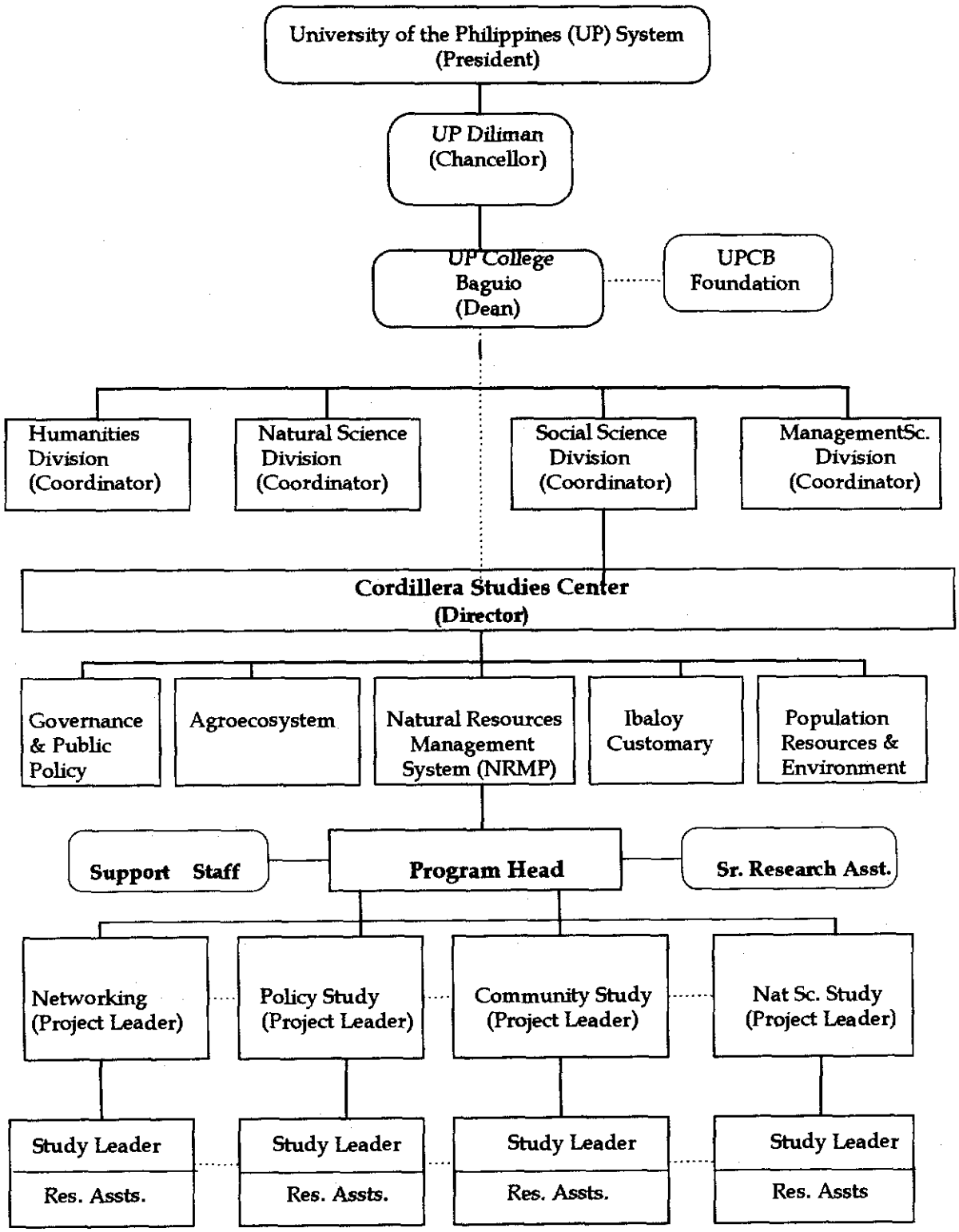
1. To understand the social, particularly institutional (whether formal or informal, indigenous or introduced) elements that affect the control and use of natural resources.

2. To determine how local socio-cultural organisations and patterns of resource use are influenced by government agencies.

3. To determine how local socio-cultural organisations and patterns of resource use are influenced by external groups like non-governmental organisations, commercial interests, and development projects.

4. To assess the effects of the interaction among local practices, governmental policy and external influences on the sustainability of social systems.

5. To analyse the quality of key aspects of the productive physical environment under different production regimes.



Annex 2

Operational Structure of IDRC Project within the Organizational System of the Cordillera Studies Center, UPCB

Annex 3

Duties and Responsibilities of Key Research Personnel
(As per the Cordillera Studies Center Manual)

Program Head

Program heads are designated by the Cordillera Studies Center (CSC) Board from among the faculty of on-going research programs (which entail several projects or study site).. Where the research project does not fall under a program, no Program Head is assigned, although coordination and reporting shall directly be under the supervision of the Associate Director.

Qualifications

He/She must be a full-time academic employee of the University of the Philippines at Diliman, or in one of the regional units under the Chancellor of U.P. Diliman. He/She must have knowledge and/or experience in the formulation and implementation of field or laboratory researches and must have time to devote at least ten (10) hours weekly for research development, implementation, and administration.

Duties And Responsibilities:

a. Initiate the detailed planning for projects and activities under the Program;

b. Liase with the Associate Director and Research Coordinator on the scheduling of implementation activities;

c. Supervise and monitor the day-to-day implementation of activities of the project under the program; and

d. Provide the CSC Board through the Associate Director with a monthly written report on the status of the projects and activities under the Program.

Project Leader/Principal Investigator

Qualifications

Qualified proponents are of two types: (a) full-time regular faculty member of the University; and (b) Research Extension Personnel Service (REPS) employed as a regular full-time employee of U.P. Diliman, or in one of the regional units under the Chancellor of U.P. Diliman, with a masteral or doctorate degree and a thesis option. The proponent need not have master's degree if the research is a: (a) thesis; or (b) a project under a research program. He/She must have knowledge or experience in the formulation and implementation of field or laboratory researches and must have the time to devote at least ten (10) hours weekly for research development, implementation, and administration.

Duties and Responsibilities

a. Plans and directs the research procedures and operations necessary to meet the objectives of the research;

b. Plans, organizes, coordinates, and controls the duties and tasks of lower level research personnel through the different stages of the research process;

c. Recommends the recruitment and termination of the research personnel;

d. Recommends the payment of salaries and fees of personnel;

e. Attests to the veracity of reimbursement requests for travel, transportation, per diems, and other research operating expenses;

f. Recommends the purchase of supplies, materials, and equipment needed in the research project; and

g. Writes and edits quarterly accomplishment, annual, and terminal reports.

Study Leader/Co-Investigator

Qualifications

The Study Leader/Co-Investigator must be a full-time academic employee (as faculty member or REPS) of the University of the Philippines at Diliman, or in one of the regional units under the Chancellor of UP Diliman. He/She must have knowledge or experience in the formulation and implementation of field or laboratory researches and must have the time to devote at least ten (10) hours weekly for research development, implementation, and administration.

Duties and Responsibilities

a. Assists the Project Leader or Principal Investigator in planning and managing over-all research operations;

b. Plans and supervises the work of lower level personnel in the implementation of the research aspects assigned to him/her by the Project Leader;

c. May review the findings, analyses, and research interpretations arrived at by lower level research personnel; and

d. May initiate and supervise data collection and processing and report writing.

Annex 4

Composition of Research Personnel Per Study Component and Period of Service*

Program Head	Component Study	Project Leader	Study Leader	Research Asst.
Florence Salinas (June 1992-May 1993) Steve Rood (June 1993-Nov. 1994)				Alice Follosco
	Community	Victoria Diaz	Gladys Cruz Cecilia San Luis June Prill-Brett Florence Salinas (June 1992-May 1993) Narcisa Canilao (June-Oct.. 1992; June-Oct. 1993) Julius Mendoza (June 1992-May 1993) Richard Castelo (June 1992-May 1993)	Jocelyn Mariano Magnolia Rosimo Nelly Dagson Caroline Balangue Judith Dao-ayen Raffy Navan Gloria Obar Milo Alumit
	Policy	Steve Rood	Lydia Casambre Victoria Bautista (June 1992-May 1993; Apr..-May 1994)	Elena Binayat Remeidos Mangay-at Crisandra Bruno
	Nat. Sci..	Celia Austria (Sept. 1992-Oct. 1993) Ofelia Giron June 1993-Mar.1994)	Roger Colting (May-Nov. 1994) Leonard Co (June 1993-Nov. 1994)	Caroline Balangue Gerry Austria Roland Romero Riva Lynn Angnged Cynthia Adchak

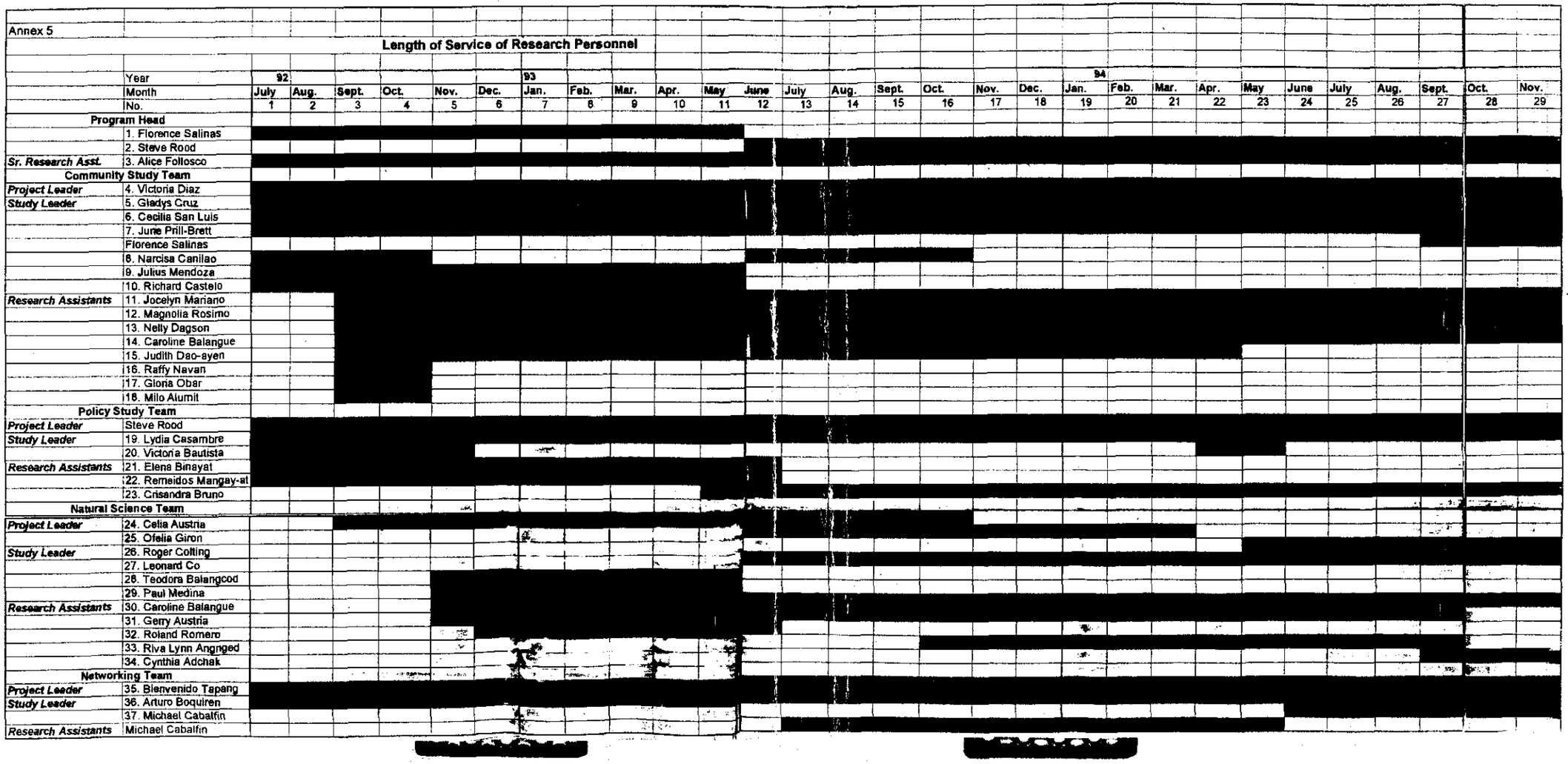
Program Head			Component Study	Project Leader	Study Leader	Research Asst.
					Teodora Balangcod (Nov. 1992-May 1993) Paul Medina (Nov. 1992-May 1993)	
			Networking	Bienvenido Tapang	Arturo Boquiren Michael Cabalfin (June-Nov. 1994)	Michael Cabalfin (July 1993-June 1994)
No. Of Personnel Involved	**37****	**2**		**5**	**15**	**18**

* Personnel whose services are not stipulated signify that their involvement covers from July 1992-November 1994.

** Figure has been adjusted to exclude personnel who either performed two functions at the same time (e.g. Steve Rood and Florence Salinas) or assumed a different function from the previous work assignment (e.g. Michael Cabalfin). Thus, avoiding counting a person twice..

Annex 5

Length of Service of Research Personnel



Annex 6

Highlights and Summaries of "Brown Bag" Meetings (1993-1994)

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
1993		
Jan. 27	• Research sites were presented and discussed. An issue whether all suggested sites will be covered and studied with the same degree of depth was raised.	
Feb. 03	• Discussed theoretical and conceptual presuppositions of the project and evoke specific topics/ themes that the program may deal with.	• The need to operationalize the concepts of equity, decentralization and cultural continuity using the framework of the study.
10	• Suggested cases/themes per research site: 1. Cudog (Lagawe, Ifugao):a case of changing agr'l practices from purely subsistence rice production to vegetable production; other sources of livelihood that do not put stress on community resources will likewise be studied. 2. Patay (Sagada, Mt. Prov.): a case of breakdown of institutional arrangement from a previous practice of communally-managed forest to one of individually-owned. 3. Sinto/Mt. Data (Mt. Prov.): a case of a forest reserve converted into agricultural land; interaction of 3 component studies -- the social cost of community transformation, policy description and policy implementation, and biodiversity (soil and water analysis).study. 4. Paoay (Benguet): a case of oldest occupied commercial	• Suggestions were inially adopted.

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
	vegetable production; effects on sustainability will be explored. 5. Ambassador (Tublay, Benguet): a case where Integrated Social Forestry Program (ISFP) can be assessed in terms of its biological and social impact.	
17	• Discussed laws & policies relative to ISFP implementation.	• Gather more specific data relative to Ambassador's case.
24	• A paper was presented regarding factors affecting sustainability, entitled, "State Policy, Indigenous Community Practice, & Sustainabiltiy in Cordillera" by Drs. Rood and Casambre	
Mar. 03	• Presentation of preliminary data on local land use system & practice in Paoay.	
10	• Presentation of preliminary data on local land use system & practice in Cudog.	
17	• Presentation of a draft paper based on a review of literature on topics related to the project. Coverage ranges from definitions of concepts, theoretical and conceptual frameworks to methodologies and issues on sustainability.	
27	• Consultation on statistical analysis for diversity.	
28	• Discussed the scope of objective 2.3 i.e., "to characterize the process by which policies with regard tothe use and control of particular resources are made and implemented".	
April	No meetings recorded	
May 05	• Finalized activities and approaches to study sites.	1. In-depth data collection and analysis in: Paoay, Atok, Benguet;

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
		Sinto, Bauko, Mt. Prov.; and Suyo, Sagada, Mt. Prov.; 2. Ambassador, Tublay, Benguet to be dealt with as a special case on ISFP and no bio-physical study will be conducted; 3. Patay, Sagada, Mt. Prov. as a case of land conflict due to land commodization; no bio-physical study will be done; and 4. Cudog, Lagawe, Ifugao will be studied for its land tenure and compared with other areas; bio-physical study will not be necessary.
June 14	• Presented the Executive committee's decision on budget re-allocation: (a) faculty researchers to be paid under the old rate until Oct. despite new rules on rates; and (b) increase in researcher's field allowance to P500/mo. • Announced the need to hire a fourth member of the Natural Science Team (bio-physical study component).	Designation of Dr. Ofelia Giron as co-Proj. Leader in the Natural Science Team.
23	• A change in the methodology in addressing objective no. 5 of the study.	• A microbiological analysis of water, benthic analysis of organisms will be used in order to have a better correlation between health status of the community with waste disposal.
	• A control area is needed for the inventory of tree species. It is proposed that a forest formation similar in Mt. Data and Paoay is necessary for comparative and correlation studies.	• Proposal was noted and favorably considered. However, a control area is yet to be defined.
	• Apprehension to do an erosion study in pine formation as it would overburden the team apart from the security problem in the area.	• Noted

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
28	• Lecture of a guest speaker (Dr. James Eder) who shared his experience on the evolution of commercial vegetable gardening in Palawan.	
July 21	• Uncertainties on the tasks of the Networking Component in the project proposal was expressed by the team leader. These concerns the: (a) scope of library work; and (b) coverage of consultation-dialogues and documentation.	• Subject to continuing discussion.
28	• Technical maps were viewed and announced the interest of a technician from the Bureau of Soils to interpret the maps.	• Assistance was welcomed.
Aug. 12	• Plans for synchronized trip in Paoay between the Natural Science and Community Study teams were discussed. • Nat.Sci. team expressed interest to undertake soil erosion study. • Community Study team planned to field visit Mt. Data	• Select a sample site in Paoay where the communityand natural science study teams can jointly conduct their respective studies
26	• Results of the field trips of Community and Natural Science Study teams in Paoay were discussed. Findings revealed that: the research area is composed of different agricultural systems which need to be described fully. • A need to identify and visit a distant rice-producing community in Paoay as a sub-system.	• There is a need for the Community Study team to discuss agricultural systems and practices based on the size of farms: small; medium; and large. • Nat. Sci. Team will focus on the following areas: (a) traditional and commercial farming; (b) normal or small scale farming; and (c) mechanized farming. • Sitio Bekkes (with lower elevation), Paoay, was initially identified. It is engaged in rice production which will be described jointly by the two

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
		teams as a sub-system; nonetheless, bio-physical testing will not be necessary. • The final choice of specific sample site will be finalized by both teams.
Sept. 09	• Reports on preliminary data gathered by the Community Study team in Mt. Data were explained.	• Possible "leads" in describing the development of commercial production need to be explored.
16	• Video coverage of the Study Leaders' trip to Mt. Data and Paoay was viewed.	• The video is to be presented to the donor agency rather than be viewed by local respondents (as they may not find it interesting).
23	• Plan of activities for the 2-week semestral break was drawn. For Natural Science Team 1. Conduct of forest work in Mt. Data: on-site collection of soil pH and DO content; and farmer interviews on pesticide use. 2. Specimens to be sent in UP (Diliman) Intitute of Botany for drying. For Community Study Team 1. Field visit (3-5 days) to Sitio Bekkes, Paoay, and Mt. Data. 2. Archival work on Sagada, Mt. Prov. 3. Summary of research ideas per site.	• Plans were concurred
October	No Meetings Recorded	
Nov. 11	• Sharing of experiences on the conference attended by Profs. Diaz and Giron in China.	
17	• Plans of Nat. Sci. Study team (bio-physical component) were presented: 1. Soil, nutrient content, pesticide and fertilizer residue analyses will be done and compared with an identified control area. The pesticide and fertilizer residue	• Plans were generally accepted. • Conduct pesticide and fertilizer residue analyses in IPM (Integrated Pest Management) plots.

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
	analyses will be done in 2 cropping seasons. 2. Dissolved oxygen content in 4 bodies of water found in the plateau will be studied • Plans of Community Study Team in Paoay were presented 3. Preparation of modules describing 6 cases of farmers' agricultural practices and arrangements and situations, i.e., "new" and "old" farmers in small, medium, and large farms with ownership as one of the criteria in identifying cases. 4. Establish the relationship between ownership and sustainable agricultural practice. • Project leader of the bio-physical component remains uncertain on how to deal with the benthic data as both agricultural and soil samples are being collected.	
Dec.	No Meetings Recorded	
1994		
Jan. 05	• Community Study leader (Prof. Cruz) of Paoay shared her experience in attending the Second Sustainable Mountain Agriculture Conference in Nairobi, Kenya.	
12	• Research Assistants of the bio-diversity component discussed their activities and technical tests being undertaken in the field	
19	• Scope of work of the Networking component was raised anew. • Plans of networking team were presented: (a) trips to one or	

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
	two communities to interview key political leaders; (b) gathering of data in the House of Reps. and the Senate. • Shared the outcomes of the Sept. 17 consultation-dialogue 26 • A faculty of the Social Science Division was invited to speak on a system of community resource accounting by involving the local community in data generation and interpretation	
Feb. 02	• Schedule for the March and April survey was outlined and each component of the study came out with a set of topics and their corresponding questions	• Noted and initially accepted.
16	• Survey outline as well as the corresponding topics and questions were refined.	• Conduct of the survey was held in abeyance pending a review of data and findings initially culled from the field and literature. Survey questions will be based on data gaps and issues that would link one component to the other.
Mar. 16	• Discussed issues that would link together the different components of the study including a common definition of "sustainability" and other key concepts relevant to the study	
April	No Meetings Recorded	
May	No Meetings Recorded	
June 16	• Finalized and enriched the graphic illustration of resource flow in the four main sites of the project. This is in preparation for the University of Wisconsin-Madison Conference where the preliminary findings of the	

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
	project will be presented	
30	• Progress report on field work and identification of data gaps. 1. Data generated in Patay, Sagada were mostly on forest resource and agricultural land use as well as in tourism	• In Suyo, Sagada, there is a need to generate more information on NGO activities in site, confirm cases on land use conversion, agricultural practices, and migration
July (u.d.)	• Rehearsed the paper to be presented in the University of Wisconsin-Madison Conference before an audience of UPCB academic community	• Issues need to be presented first followed by the initial findings of the study.
14	• Dr. Rood shared his experience in the Wisconsin-Madison Conference and discussed the methodology developed on participatory land use planning in Thailand.	
21	• Briefing meeting and finalization of plans in preparation for the arrival of IDRC guests	• Preliminary findings will be presented to IDRC guests.

Source: Narrative Report (01 June 1992-15 December 1994) and Interviews

Annex 7

Highlights and Summaries of Administrative Meetings

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
1992		
July 23	• Personnel - involvement of faculty, consultants, and researchers in the project. • Budget - allocation for professional services of personnel and possible purchase of a second-hand vehicle and camera. • Lesser value of peso due to depressed dollar-peso exchange. • Alternative sources of funds for the planned consultation-dialogues of the Networking team	• Everybody will assist in scouting for a second-hand vehicle for the project • Seek the assistance of J. Mendoza to secure an affordable camera
Aug.	No Meetings Recorded	
Sept.	No Meetings Recorded	
Oct.	No Meetings Recorded	
Nov.	No Meetings Recorded	
Dec.	No Meetings Recorded	
1993		
14 Jan.	• Update of community study team planned activities. • Utilization of abstracts of related literature prepared by researchers. • Utilization of the Oct. 7, 1992 consultation-dialogue (CD) proceedings. • Preparation of CSC reading materials for distribution to CD's	• Community study team to prepare a one-page description of seven (7) research sites • Abstracts of literature reviewed shall be shared to everyone in weekly meetings

Highlights and Summaries of Administrative Meetings

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
	participants.	
Feb.	No Meetings Recorded	
Mar.	No Meetings Recorded	
Apr.	No Meetings Recorded	
08 May	• Credit load of faculty researchers for the coming semester. • Proposed to involve Dr. Giron in the research. • Prof. Salinas intention to go on leave for a year after her term as CSC director ends in May.	• Dr. Rood will replace Prof. Salinas as program head apart from the project leader for the policy component of the study.
07 June	• Financial statement for year 01 was presented. The following issues were raised: 1. Fellowship item in the financial statement has not been updated due to the failure of Ms.. L. Mendoza to liquidate her cash advances and; 2. Part of the administrative costs were use as payment for research assistants (RAs) bonus, honoraria for support staff, workshops, and overload honoraria of *some* faculty researchers. • Equipment for Natural Science (NS) study team has yet to be purchased. • NS perceives that doing a soil analysis in Suyo, Sagada would be too expensive while undertaking species count in the pine forest would be useless as it is not as diverse as an oak forest.	• Hire a clerk whose salary would be charged to the project • Hire L. Co effective June 1993. • Decision on the proposed purchase of equipment by the NS was held in abeyance pending a review of the budget.

Highlights and Summaries of Administrative Meetings

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
	• The need to hire a clerk. • Hiring of Leonard Co of UP-Herbarium to work with the NS team	
12	• Reviewed project's budget relative to the proposal to purchase a vehicle and equipment for NS's study	• Finalized credit load of faculty researchers. • Allowed Networking component to hire an RA to work on objective 2.3. • NS can hire another RA. • Faculty honoraria will be provided only for those who will get academic overloads under the old rate. The new rate will apply in November 1993.
22	• Report on the test drive made on the proposed vehicle to be purchased. A down payment of P80,000. has been made already.	• Purchase of a second-hand vehicle to facilitate researchers' trip to study sites.
July 09	Discussed the concerns of NS: 1. Software requirements for forest data entry; 2. Uncertainty of a control area for the forest test and the need to work in Mt. Pulag; and 3. Expressed doubts on the sustainability of Paoay.	• Initial choice of site in Paoay for NS test.
Aug. 11	• Discussed the joint field trip of the Community Study and NS teams in Paoay to identify a common site where their respective studies can be conducted. • The need to document all activities of NS team.	• Joint field trip of the community & NS study teams was set. • Senior RA or Publications Assistant to join NS's major field trip to document activities • Proposal was noted.

Highlights and Summaries of Administrative Meetings

Year/ Day/ Month	Discussion Points and Issues Raised	Decision Points
	• Proposal to study Mt. Pulag was submitted.	
20	• Discuss the forthcoming Yunnan Biodiversity Conference and the person to be sent under IDRC auspices	• The participant has to come from the Community Study Team. A suggestion was made that a second participant to the Confernece must come from the NS Study team who may not necessarily deliver a paper. Thus, request for additional funds from IDRC to sponsor another person will be made.
	• Discussed the expectations from the biodiversity study.	• Findings from the biodiversity study and inventory of forest species must have a utility value to the community.
Sept. 21	• Difficulties encountered by RAs due to their limited allowances on field. • Budget of the project and credit loads of faculty researchers discussed. • Expected activities and corresponding costs were deliberated. • NS Study team presented their future trips	• Per diem allowances of RA were increased to P115
Oct.	No Meetings Recorded	
Nov.	No Meetings Recorded	
Dec.	No Meetings Recorded	
1994		
Jan. 21	• Update on project's budget and funds	
Feb. 17	• Fund status of the project and	• Prepared written request to IDRC

Highlights and Summaries of Administrative Meetings

Year/ Day/ Month	*Discussion Points and Issues Raised*	Decision Points
	problems encountered due to dollar-peso exchange fluctuation. The problem resulted in a deficit affecting the cost of administration of the project.	for the release of funds. • Informed the UPCB Foundation about the financial problem.
Mar.	No Meetings Recorded	
Apr. 04	• Reviewed the result of the survey's first pre-test	
09	• Reviewed the result of the second pre-test of the survey.	
May	No Meetings Recorded	
June 09	• Reviewed budget	• Requested IDRC for the release of additional funds.
July	No Meetings Recorded	
Aug.	No Meetings Recorded	
Sept.	No Meetings Recorded	
Oct. 07	• Request for possible additional project funds based on the following assumptions: 1. all staff are renewed until Nov. 30 1994; 2. conduct an outreach to all study *sites;* 3. retain five (5) core staff beginning Dec. 1994 (bridge funds to be requested); 4. Submit technical report by 30 Nov. 1994; and 5. Come out with monographs, working papers as well as visits to communities.	• Schedule for report writing and submission was drafted.

Source: Narrative Report (01 June 1992-15 December) 1994 and Interviews

Annex 8

Consolidated Activities and Outputs
1992-1994

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
1992		
July 23	Discussion on: • research personnel involvement in the project, i.e.. faculty researchers, consultants, research assistants, and supportt/ administrative staff; • Research budget and problem in peso depreciation (peso-dollar exchange rate); • Possiblee alternative funding source for consultation-dialogue.	
August	Drafting of survey design	
Sept.-Feb. '93	Editing of draft survey design	
Sept.	The Natural Science (NS) component of the study has started to review of literature related to forests, water systems, agricultural practices, and the environment (library work in Baguio, Diliman, & LB)	Allows researchers to be familiarized with the issues the project intends to address especially on the area of sustainability and biodiversity.
Sept.-Nov.	Fieldwork • administration of census questionnaire • key informant interviews	Complete census in six (6) research sites • Culled general information for research themes per site; location & transect maps generated • Practices, use access, disposal, conservation of benefits, patterns of devolution were

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
		derived.
Oct. 7	Consultation-Dialogue (CD) with government and non-governmental organizations (GOs-NGOs) re: policies on forest and agricultural land management. DENR (Department of Environment and Natural Resource) spoke of its Integrated Social Forestry Program (ISFP) and the National Integrated Protected Area System (NIPAS). The Department of Agriculture (DA) discussed its programs.	Attended by five (5) out of seven (7) GOs invited and nine (9) out of 23 NGOs..
Nov.- June '93	Entry of census data	
1993		
Jan. 14	Updates on community study team planned activities	
17	Update on component activities	
27	The feasibility of covering the six (6) research sites was discussed.	One page description of study sites
Feb03	Possible theoretical & conceptual frameworks were discussed;	
10	Land classification, possible agricultural and forest management practices relative to their sustainability were discussed for six (6) study sites;	
17	Laws and policies regarding Integrated Social Forestry Program (ISFP) were discussed	
24	Paper on State policies and indigenous practices as well as factors affecting the sustainability of agricultural and forest lands were discussed.	

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
Mar. 03	Presentation of preli;minary data on local land use system & practice in Paoay;	
10	Presentation of preliminary data on local land use system & practice in Cudog.	
17	Presentation of a draft paper based on a review of literature on topics related to the project. (Dr. Canilao)	
27	Consultation on statistical analysis of diversity	
28	Discussed the scope of objective 2.3 i.e., "to characterize the process by which policies with regard tothe use and control of particular resources are made and implemented".	
May 05	Finalized activities and approaches to six (6) study sites	In-depth data collection and analysis in: • Paoay, Atok, Benguet; • Sinto, Bauko, Mt. Prov.; and • Suyo, Sagada, Mt. Prov. ISFP case but with no bio-diversity study • Ambassador, Tublay, Benguet Land conflict case due to commodization: • Patay, Sagada, Mt. Prov. Land tenure compared with other areas: Cudog, Lagawe, Ifugao
08	Discussed credit load of faculty researchers for the coming semester, school-year 1993-'94	Dr.. Rood will take over the post of Prof. Salinas who signified her intention to take a leave for a year.
June 07	Financial statement for year 01 was presented for discussion	

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
	Personnel complement: • hiring of a technical staff for NS (Leonard Co, UP Herbarium) • hiring of additional clerk Concern of Nat Sci. component to do a soil analysis in Suyo, Sagada & biodiversity study: • soil analysis is too expensive • difficulty to conduct a biodiversity as the area is not as diverse as an oak forest. Discuss the possibility of purchasing of equipment for the Nat. Sci. component.	Hring of a technical staff for NS. Hiring of a clerk whose salary is charged against project funds.
12	Personnel complement	Finalized credit load of faculty researchers. Faculty honoraria will be provided only for those who will get academic overloads under the old rate. The new rate will apply in Nov. 1993. Allowed Networking component to hire an RA to work on objective 2.3. NS can hire another RA.
14	• Presented the Executive committee's decision on budget re-allocation: (a) faculty researchers to be paid under the old rate until Oct. despite new rules on rates; and (b) increase in researcher's field allowance to P500/mo. • Announced the need to hire a fourth member of the Natural Science Team (bio-physical study component).	Designation of Dr. Ofelia Giron as co-Proj. Leader in the Natural Science Team.

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
22	Report on vehicle test drive	Purchase of a second-hand vehicle to facilitate researchers' trip to study sites. The cost of the vehicle was charged against IDRC funds.
23	Discussed project issues	
	• A change in the methodology in addressing objective no. 5 of the study.	A microbiological analysis of water, benthic analysis of organisms will be used in order to have a better correlation between health status of the community with waste disposal.
	• A control area is needed for the inventory of tree species. A forest formation similar to Mt. Data and Paoay is proposed for comparative and correlation studies.	Proposal was noted and favorably considered. However, a control area is yet to be defined.
	• Apprehension to do an erosion study in pine formation was raised anew as it would overburden the team apart from the security problem in the area.	Noted
28	Lecture of Dr. James Eder who shared his experience on the evolution of commercial vegetable gardening in Palawan.	
u.d.	Diagnostic trips to study sites by the policy component	Provided info on community level agency activities, i.e. Integrated Pest Management (IPM), Sloping Agricultural Land Technology (SALT), and Integrated Social Forestry (ISF) and DA's Research & Extension Linkage. Data provided knowledge on the evolution of general gov't programs and led to the publication of CSC WP (Technical Rpt.)

N.B. At the end of the month, the policy component of the study has already consolidated their secondary data derived from the Department of Agriculture (DA)

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
and Department of Environment and Natural Resources (DENR).. **It was at the end of June 1993 (undated in the narrative report) that the decision to focus on four (4) sites rather than six (6) was made.**		
July 06	Consultation with a forester on biodiversity methodology	
09	Discussed the concerns of NS: • Software requirements for forest data entry remain to be identified. • Uncertainty of a control area for the forest test and the need to work in Mt. Pulag • Expressed doubts on the sustainability of Paoay.	Initial choice of site in Paoay for NS test.
21	Discussion on compent tasks Uncertainties on the tasks of the Networking Component: • scope of library work • coverage of consultation-dialogues and documentation.	
28	Technical maps of the study sites were viewed.	
N.B. At the start of July 1993, the Networking component of the study has started review literature relative to policy formulation. Government agencies, especially DA , DAR, and DENR, were visited Likewise, the Senate and the House of Representives were visited to acquaint the researchers on how a bill is formulated until it becomes a law. *This activity run for a year, until July 1994.*		
Aug. 04	Dr. Colting of Benguet State University (BSU) was consulted for the soil analysis	
11	Discussed the joint field trip of the Community Study and NS teams in Paoay to identify a common site where respective studies can	Date for the trip was set. Senior RA or Publications Assistant to join all NS trips to document all

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
	be conducted. Proposal to study Mt. Pulag was submitted. 12 NS expressed interest to do a soil erosion study and identified Paoay as a site.	activities Proposal was noted.
N.B. In mid-August (undated) the NS team collected soil samples in Paoay to determine soil pH as well as temperature data. The team also entered Mt. Data watershed reserved area to assess the area if its comparable to Paoay. A dry-run was also conducted to assess the feasibility of proposed methodologies for the montane forests of Mt. Data and Paoay.		
20	Participants to be sent to the forthcoming Yunnan Biodiviersity Conference was discussed Discussed the expectations from the biodiversity study.	A suggestion was made that two (2) participants rather than one would attend the conference. Additional funding support from IDRC will be requested. The request was granted. Findings from the biodiversity study and inventory of forest species must have a utility value to the community.
26	Results of the joint trip of Community Study and NS teams in Paoay were discussed. There is a need to identify and visit a distant rice-producing community in Paoay to be studied by both teams as sub-system.	The Community Study team to discuss agricultural systems and practices based on the size of farms: small; medium; and large while NS team will focus on the following areas: (a) traditional and commercial farming; (b) normal or small scale farming; and (c) mechanized farming. Sitio Bekkes (with lower elevation), Paoay, was initially identified. However, the final choice of a sample site will be finalized by both teams.
Sept. 09	Reports on preliminary data gathered by the Community Study team in Mt. Data were explained.	Paper on preliminary data on Mt. Data Description of the factors which

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
		led to the development of commercial production will be discussed.
16	Video coverage of the Study Leaders' trip to Mt. Data and Paoay was viewed.	
17	Consultation-Dialogue (CD) on the GO-NGO partnership in policy formulation.	The output of the CD became an input to the forthcoming 3rd National Congress of the Philippine Political Science Association on Dec. '93
21	Administrative issues discussed: • Difficulties encountered by RAs due to their limited allowances on field. • Budget of the project and credit loads of faculty researchers discussed. • Costs for future activities and were deliberated. NS Study team presented their future trips.	Per diem allowances of RA were increased to P115
23	Activities for the 2-week semestral break was drawn. • For Natural Science Team 1. Conduct of forest work in Mt. Data: on-site collection of soil pH and DO content; and farmer interviews on pesticide use.. 2. Specimens to be sent in UP (Diliman) Intitute of Botany for drying. • For Community Study Team 3. Field visit (3-5 days) to Sitio Bekkes, Paoay, and Mt. Data. 4. Archival work on Sagada, Mt. Prov. 5. Summary of research ideas	

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
	per site.	
30	Consultation with Dr. Colting on soil analysis	
Oct.	Field data collection for biodiversity study was done in Mt. Data by the NS Team	Soil & water samples were gathered in the site before planting, during growing season and after harvest (one cropping season only) Soil tests were tested at the Bureau of Soils Lab while pesticide residue analysis was done at the Pestice Analytical Laboratory of the Bureau of Plant Industry. Water analysis (Anion analsysi) was done at the Natural Science Research Institute (UP-Diliman)
Nov.11	Sharing of experiences on the conference attended by Profs. Diaz and Giron in China.	
17	Plans of NS Study team were presented: • Soil, nutrient content, pesticide and fertilizer residue analyses will be done and compared with the control area. The pesticide and fertilizer residue analyses will be undertaken in two cropping seasons. • Dissolved oxygen content in four (4) bodies of water found in the plateau will be studied Plans of Community Study Team in Paoay were alsos presented • Preparation of modules describing six (6) cases of farmers' agricultural practices and arrangements and situations, i.e., "new" and "old" farmers in small, medium, and large farms with	Conduct pesticide and fertilizer residue tests in IPM (Integrated Pest Management) plots.

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
	ownership as one of the *criteria in identifying cases.* • Establish the relationship between ownership and sustainable agricultural practice. NS Project leader remains uncertain on how to deal with the benthic data as both agricultural and soil samples are being collected.	
Dec	Computer prinouts of census data are made available Networking component has drafted a questionnaire for DA, DAR, and DENR respondents to fill in the information gaps from the literature reviewed.	
1994		
Jan. 05	Community Study leader (Prof. Cruz) of Paoay shared her experience in attending the Second Sustainable Mountain Agriculture Conference in Nairobi, Kenya.	
12	Research Assistants of the bio-diversity component discussed their activities and technical tests being undertaken in the field • NS planned a microbiological study but later decided to abandon it in March. Equipments purchased and remaining supplies were donated to the NS Dept. Of UPCB	
19	Scope of work of the Networking component was raised anew. • Plans of networking team	

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
	were presented: (a) trips to one or two communities to interview key political leaders; (b) gathering of data in the House of Reps. and the Senate. • Shared the outcomes of the Sept. 17 consultation-dialogue	
21	Update on project's funds and remaining budget.	
26	A faculty (Prof. Boquiren) of the Social Science Division was invited to speak on a system of community resource accounting (involving the local community in data generation and interpretation).	
N.B. Networking team started to write their report in January until March 1994 NS installed run-off gauging instrument in Paoay to record soil erosion. Data in the rainy season of '94 were gathered. This was done from January to February;		
Feb. 02	Schedule for the March and April survey was outlined and each component of the study came out with a set of topics and their corresponding questions	
16	Survey outline as well as the corresponding topics and questions were refined.	Conduct of the survey was held in abeyance pending a review of data and findings initially culled from the field and literature. Survey questions will be based on data gaps and issues that would link one component to the other.
17	Fund status of the project and problems encountered due to dollar-peso exchange fluctuation. The problem resulted in a deficit affecting the cost of administration of the project.	Prepared written request to IDRC for the release of funds. Informed the UPCB Foundation about the financial problem.

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
Mar.09	Presentation of progress reports (Day-long workshop)	
16	Team conference: Review of accomplishments Discussed issues that would link together the different components of the study including a common definition of "sustainability" and other key concepts relevant to the study	
u.d.	NS field data collection in Paoay.	Soil & water samples were gathered in the site before planting, during growing season and after harvest (one cropping season only) Soil tests were done at the Bureau of Soils Lab while pesticide residue analysis was undertaken at the Pestice Analytical Laboratory of the Bureau of Plant Industry. Water analysis (Anion analsysi) was conducted at the Natural Science Research Institute (UP-Diliman)
u.d.	Survey questionnaire for the seven (six?) research sites finalized	
Apr. 04	Conducted the survey's first pre-test in a non-research area	
	Reviewed the result of the survey's first pre-test.	
09	Conducted the survey's second pre-test in a non-research area..	
	Reviewed the result of the second pre-test.	
3rd week	Third pre-test of survey in Cudog.	
u.d.	Interviews with barangay officials of Sagada and other key community leaders to find out if procedures in policy making were	

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
	being done at the community level.	
N.B. Interviews with government personnel by members of the networing team (April to June)		
May (1st wk.)	Finalized survey questionnaire	
5-7	Survey done in Ambassador	
u.d.	Survey in six (6) study sites	
23-27	Preliminary consolidation to outputs in preparation for the Univ of Wisconsin-Madison Conference	
u.d.	NS collected & inventoried benthos organisms.	
u.d.	Networking team visited the national office of DA, House of Rep. and the Senate	
u.d.	Installation of instrument to gather rainfall and wind velocity data in Paoay.	
June 09	Reviewed project's budget	Requested IDRC for the release of additional funds.
16	Presentation of a summary of preliminary findings of the project. Finalized and enriched the graphic illustration of resource flow in the four main sites of the project. The activities were in line with the preparation for the University of Wisconsin-Madison Conference where the preliminary findings of the project will be presented	

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
30	Progress report on field work and identification of data gaps. • Data generated in Patay, Sagada were mostly on forest resource and agricultural land use as well as in tourism	 In Suyo, Sagada, there is a need to generate more information on NGO activities in site, confirm cases on land use conversion, agricultural practices, and migration
July (u.d.)	Rehearsed the paper to be presented in the University of Wisconsin-Madison Conference before an audience of UPCB academic community	
14	Dr. Rood shared his experience in the Wisconsin-Madison Conference and discussed the methodology developed on participatory land use planning in Thailand.	
21	Briefing meeting and finalization of plans in preparation for the arrival of IDRC guests	
23	Presentation of preliminary findings before IDRC guests.	
u.d.	Networking team transcribe taped interviews with government personnel.	Transcription of tapes were done Sept.
u.d.	End of literature review of the Networking team.	Reviewed literature on the processes of policy making.
u.d.	Policy component examined court cases on resource manangement conflict.	Examined court cases (Clerk of Court, Bontoc, CENRO in Sabangan, offices of SECAL, two dockets of decided cases, and as well as pending ones)
Sept. u.d.	End of policy analysis based on key informant interviews and literature reviewed	
Oct. 07	Request for possible additional	Schedule for report writing and

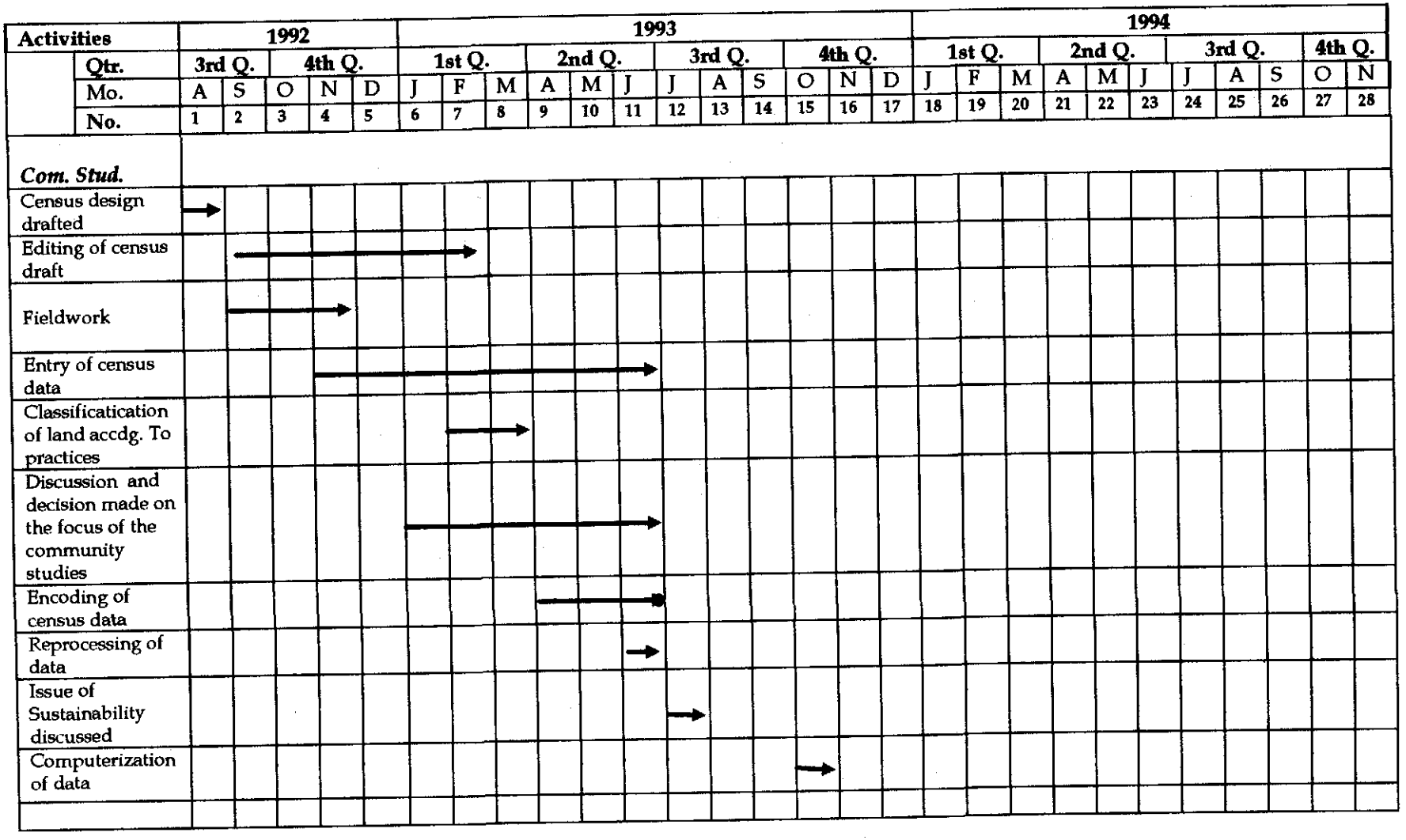
Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
	project funds based on the following assumptions: 1. all staff are renewed until Nov. 30 1994; 2. conduct an outreach to all study sites; 3. retain five (5) core staff beginning Dec. 1994 (bridge *funds to be requested*); 4. Submit technical report by 30 Nov. 1994; and 5. Come out with monographs, working papers as well as visits to communities.	submission was drafted.
21	Informal sharing on NIPAS Law	
Nov. 10	Presentation of draft narrative and technical reports	
u.d.	Samples of biodiversity tree species were examined in UP-Herbarium and UPLB Herbarium	
21	Discussed draft technical report	
u.d.	Finalize policy report on DA-DAR; validation meeting attended by DA, PPDO and research staff of Benguet	
u..d.	Validation meeting in Suyo by the Com. Study team	
Dec. 02	Expanded meeting to discuss follow-on	
05	Presentation of draft technical report Small group meeting (CSC) on follow-on ideas	
08	Small group (CSC-BSU) meeting on follow-on ideas	

Activities and Outputs		
Year/ Day/ Month	**Activities**	**Outputs**
11	Rehearsal on the presentation of final report.	

Source: Narrative Report (01 June 1992-15 December 1994) and Interviews

Annex 9

Activity Chart Per Component Study (August 1992-November 1994)



Annex 9

Activity Chart Per Component Study (August 1992-November 1994)

Activities	1992					1993												1994										
Qtr.	3rd Q.		4th Q.			1st Q.			2nd Q.			3rd Q.			4th Q.			1st Q.			2nd Q.			3rd Q.			4th Q.	
Mo.	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Census printouts made available																	→											
Formulation of survey instrument																				→								
Two pre-test for survey																					→							
3rd Pre-test of survey design																					→							
Survey design finalized & conducted to study sites (the first one was made in Ambassado)																						→						
Survey data computerized																							→					
Validation meeting in Suyo & Patay																												→
Policy/Networking																												
Consultation-Dialogue w/ GOs, NGOs on gov't policies & programs			→																									

Annex 9

Activity Chart Per Component Study (August 1992-November 1994)

Activities	1992					1993												1994										
Qtr.	3rd Q.		4th Q.			1st Q.			2nd Q.			3rd Q.			4th Q.			1st Q.			2nd Q.			3rd Q.			4th Q.	
Mo.	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Diagnostic trips & met with program recipients & implementors in the field												→																
Gather materials on how laws, policies are formulated & processed (visited offices & libs.) * Drafted questionnaire for DA, DAR, DENR rspondents												→	→	→	→	→		→	→	→	→	→	→	→				
Consult ation-Dialoguee on status of NGO-GO partnership (output to be used an input to th 3rd Nat'l Soc.Sci. Congress)														→														
Report writing																		→	→	→								

Annex 9

Activity Chart Per Component Study (August 1992-November 1994)

Activities	1992					1993												1994										
Qtr.	3rd Q.		4th Q.			1st Q.			2nd Q.			3rd Q.			4th Q.			1st Q.			2nd Q.			3rd Q.			4th Q.	
Mo.	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
KI in Sagada re; policy making at the community																					→							
Interviews w/ gov't personnel																					→	→	→	→				
Visited nat'l offices of DA & DENR, H of Rep. & Senate																						→						
Transcription of interviews																								→	→	→	→	
Gather data on resource management conflicts based on 1992 census (this includes key informants interviews)																								→	→	→	→	
Finalize policy report on DA, DAR, & DENR																												→
Nat.ural Sci.																												
Formation				→																								
Revision of methodologies from from E.																												

Annex 9

Activity Chart Per Component Study (August 1992-November 1994)

Activities	1992					1993												1994										
Qtr.	3rd Q.		4th Q.			1st Q.			2nd Q.			3rd Q.			4th Q.			1st Q.			2nd Q.			3rd Q.			4th Q.	
Mo.	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Coli to benthos organism test to measure water pollution.											→																	
Trip to Paoay & Mt. Data to collect soil pH & temperature data & assess the feasibility of new mehthodology														→														
Field data collection for biodiversity in: • Mt. Data • Paoay															→					→								
Installatioin of run-off instrujent for the soil erosion study																		→	→									
Collection of benthos micro-organism																						→						
Installation of instrument to measure rainfall & wind velocity in Paoay																						→						

Annex 9

Activity Chart Per Component Study (August 1992-November 1994)

Activities		**1992**					**1993**												**1994**										
	Qtr.	**3rd Q.**		**4th Q.**			**1st Q.**			**2nd Q.**			**3rd Q.**			**4th Q.**			**1st Q.**			**2nd Q.**			**3rd Q.**			**4th Q.**	
	Mo.	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
	No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Soil samples tested & pesticide residue analysed																							→						
Biodiveersity of tree species analysed in UP Herbarium																													→
Program																													
Review of accomplishments & planning																						→							
Preliminary consolidation of outputs (prep for Wisconsin conf.)																							→						
Presentation of draft narrative & technical rpt.																													→

Annex 10

List of Government and Non-Governmental Agencies Informally Linked with the Project

Government Agencies

1. Department of Agrarian Reform
2. Department of Agriculture
3. Department of Environment and Natural Resources
4. House Committee on Natural Resources, House of Representatives
5. National Economic and Development Authority (CAR)
6. Rural Health Unit (Mt. Data), Department of Health
7. Senate Committee on Natural Resources, Philippine Senate

Local Government Units

1. Abra Provincial Office, Provincial Planning and Development Office
2. Benguet Provincial Office, Provincial Planning and Development Office

Non-Goverenmental and Peoples' Organizations

1. Association of Private Voluntary Organizations (Baguio City and Benguet Province)
2. Baguio Regreening Movement
3. Baguio-Benguet NGO Congress
4. Cordillera News Agency
5. Cordillera Peoples' Alliance
6. Cordillera Resource Center
7. Mining Communities Development Centre

Others

1. Benguet Mining Corporation
2. World Bank, Sectoral Adjustment Loan Project

Annex 11

Fora and Conferences Attended
(Local and International)

International

1. Second Research Planning Meeting of the SUAN (Southeast Asian Universities Agroecosystems Network) Sustainable Land Use Task Group, Khon Kaen, Thailand. July 11-17, 1993.
Attendee: **Prof. Gladys A. Cruz**

2. SUAN-ENV Methodology Workshop on Biodiversity, Xishuangbanna, Yunnan, Peoples' Republic of China. October 24-30, 1993. Papers delivered, "Studying Biodiversity at the Community Level" by Victoria Corpuz-Diaz and "A Report from the Cordillera Studies Centre, University of the Philippines-College Baguio" .
Attendees: **Prof. Victoria C. Diaz and Dr. Ofelia Dlc. Giron**

3. IDRC Workshop on Sustainable Highland Agriculture, Nairobi, Kenya. December 6-11, 1993. Paper delivered, "Agricultural Commercialisation in the Sustainable Development of the Cordillera" by: Gladys A. Cruz, Victoria C. Diaz, Alicia G. Follosco, Lorelei C. Mendoza, Steven Rood, and Bienvenido P. Tapang, Jr.
Attendee: **Prof. Gladys A. Cruz**

4. Conference on Environment and Development in Southeast Asia, University of Wisconsin-Madison, USA July 9-10, 1994. Paper delivered, "Indigenous Practices and State Policy: The Sustainable Management of Agricultural Lands and Forests in the Cordillera", (A Preliminary Report on the Research Project).
Attendee: **Dr. Steven Rood.**

5. Meeting in IDRC, Canada, December 1994.
Attendee: **Prof. Gladys A. Cruz**

6. SUAN Land Degradation Project: Workshop on Methodologies., Khorat, Thailand February, 1995.
Attendee: **Prof. Gladys A. Cruz.**

Local

7. Second Meeting of the Ad Hoc Committee for the Foundations of the PAMB under the NIPAS Act, November 11, 1993, Kabayan, Benguet.
Attendee: **Michael Cabalfin**

8. Sustainable Strategies for Natural Resource Management in the Cordillera Highlands December 9-10, 1993. Philippine Social Science Council.
Attendee: **Dr. June Prill-Brett**

9. SUAN-ENV Workshop on Biodiversity Conservation. February 1994, SEARCA, University of the Philippines at Los Banos, Laguna.
Attendees: **Prof. Gladys A. Cruz, Prof. Victoria C. Diaz, and Dr.. Ofelia Dlc. Giron**

Annex 12

Published and Forthcoming CSC Working Papers

1. "State Policy, Indigenous Community Practice, and Sustainability in the Cordillera, Northern Philippine", Steven Rood and Athena Lydia Casambre, CSC Working Paper No. 23 (1994).

2. "Indigenous Practices and State Policy in the Sustainable Management of Agricultural Lands and Forests in the Cordillera: A Summary Report", CSC Working Paper No. 25 (March 1995)

3. "Process of Policy Formulation in Resource Management", Arturo Boquiren and Michael Cabalfin. CSC Working Paper (May 1995)

4. "Policy for Sustainable Agriculture in the Cordillera (with cases from Benguet and Mountain Province)", Athena Lydia Casambre (Forthcoming).

5. "Needs Assessment for an Environmental Awareness Program for Barangay Suyo", (Forthcoming)

Annex 13

Equipments, Semi-Expendable, and Non-Expendable Properties Acquired in the Course of Project Implementation

Qty.	Unit	Name & Description	Date Acquired	Unit Value (P)	Total Value (P)
1	pc.	Binocular 7x35 NOC coated JB-38	Aug. '93	3,250.	3,250.
10	pcs.	Sony Stereo Headphones	Mar. '93	190.	1,900.
1	unit	PC-AT 386 computer	Jan. '93	22,500.	22,500
1	unit	Oxygen meter model 8543 "Hanna" Brand new*	Apr. '93	22,750	22,750.
1	pc.	Soil sampling tube JMC, wet soil Hach Cat. #20588-12*	Apr. '93	3,295.	3,295.
1	pc.	Soil sampling tube, dry soil Hach Cat. #20589-12*	Apr. '93	4,160.	4,160.
1	unit	Multipurpose pH/mV/cC ATC/Field meter hand type model 8314 "Hanna" Brand New*	Apr. '93	13,975.	13,975.
1	unit	Brunton Compass/Pro 90, 37227 model F 8700 quadrant (0-90-0)	Apr. '93	9,590.	9,590.
1	set	Petromax	Aug. '93	1,562	1,562.
1	pc.	Steel cabinet	Aug. '93	3,850.	3,850.
2	pcs.	Magnifying lens	Aug. '93	750.	1,500.
1	copy	Ellefson, Forest Resource Economic and Politics (Book)	July '92	2,079.	2,079.
5	unit	Sony cassette recorder TCM-82V	Apr. '93	1,300.	6,500.
5	unit	Sony casseette recorder TCM-81	Apr. '93	1,300.	6,500.
2	pcs.	Prunning sheers, FELCO model	Aug. '93	2,950.	5,900.
2	pcs.	Battery model NP55 6 volts, 1 Amp.	Aug.. '93	850.	850.
13	pcs.	Assorted vehicle mechanical tools	Aug.-Dec. '93		5,925.
Total					**116,086**

* Donated to Natural Science Division, UPCB

Source: Memorandum Receipt for Equipment, Semi-Expendable and Non-Expendable Property, CSC-UPCB, December 1993

Annex 14

Academic Background of Key Research Personnel

Position/Title	Faculty Researcher	Academic Background	Type of Science	Total	
				Soc. Sci.	Nat. Sci.
Program Head	Florence Salinas	Master of Management (Business); A.B. Economics and Sociology	Social Science		
	Steve Rood	Ph.D. Political Science	Social Science		
				2	0
Project Leader	Victoria Diaz	MS Sociology and Anthropology	Social Science		
	Celia Austria	no CV	Natural Science		
	Ofelia Giron	Ph.D. Chemistry	Natural Science		
	BienvenidoTapang	MA Economics	Social Science		
				2	2
Study Leader	Gladys Cruz	MA Social and Development Studies	Social Science		
	Cecilia San Luis	MA Anthropology	Social Science		
	June Prill-Brett	Ph.D. Anthropology	Social Science		
	Narcisa Canilao	Ph.B. Philosophy	Social Science		
	Julius Mendoza	Ph.D. Philosophy	Social Science		
	Richard Castelo	No CV	Social Science		
	Lydia Casambre	Ph.D. Political Science	Social Science		
	Victoria Bautista	MS Psychology (units)	Social Science		
	Roger Colting	Ph. D. Soil Science	Natural Science		
	Leonard Co	no CV	Natural Science		
	Teodora Balangcod	MS Biology	Natural Science		
	Paul Medina	BS Biology	Natural Science		
	Arturo Boquiren	BA Social Science	Social Science		
	Michael Cabalfin	MA Social Development Studies	Social Science		
				10	4
T o t a l				**14**	**6**